

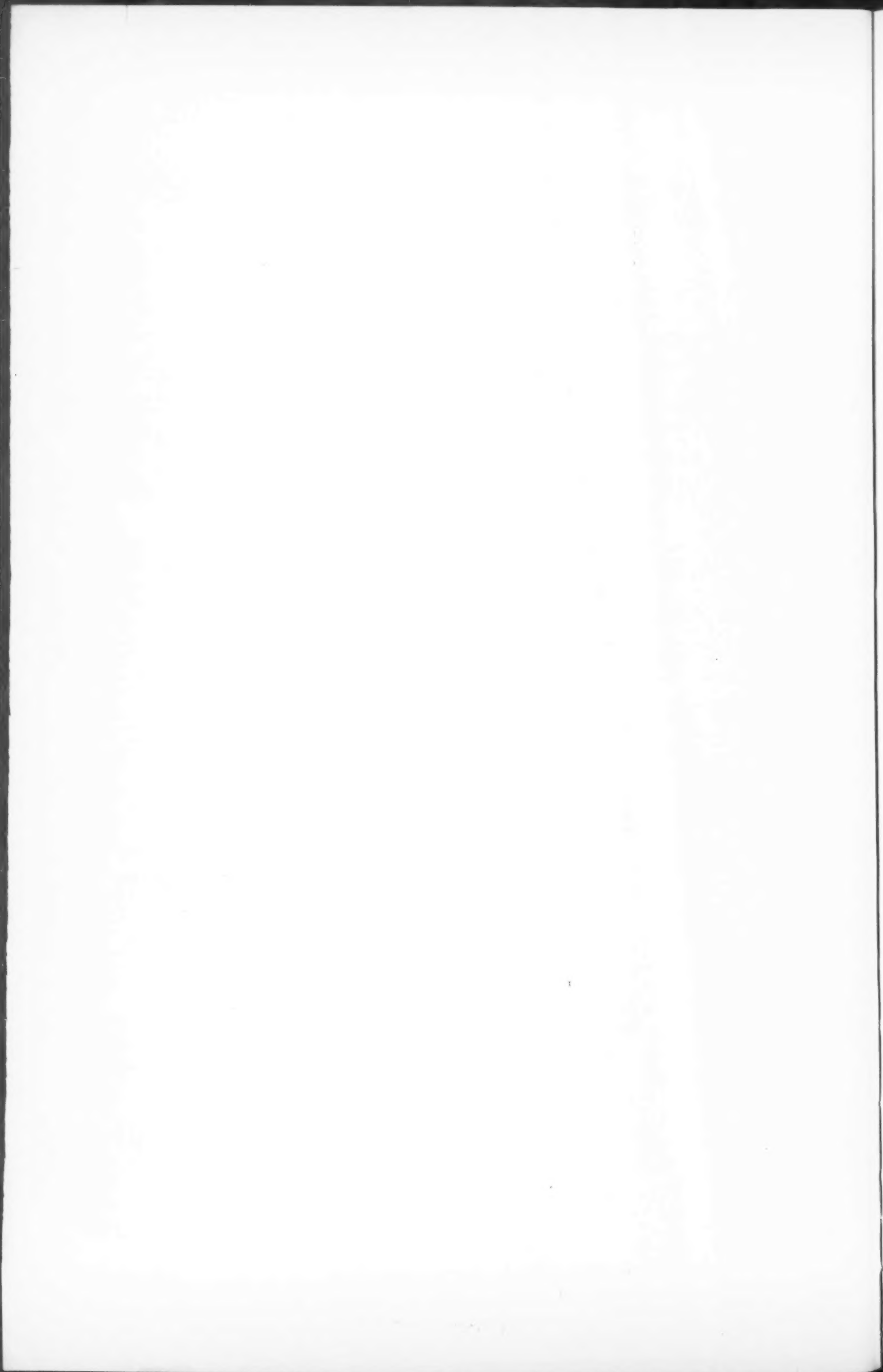
# THE IRON AGE

VOL. XCIV.

JULY—DECEMBER, 1914

---

NEW YORK:  
DAVID WILLIAMS COMPANY,  
239 West 39th Street.



# INDEX

Illustrated articles indicated by\*.

## A

Abell, O. J.:  
 Making Unusual Pumps for New Orleans,\* Nov 5 p 1060  
 Accidents:  
 Compensation Acts and Industrial Diseases, Oct 1 p 807  
 Compensation in Massachusetts, Oct 29 p 1006  
 First Aid Jar,\* Dec 24 p 1444  
 First Aid Treatment, Dec 17 p 1420  
 Addy, Matthew, & Co.:  
 Southern Pig-Iron Rate Reduction, July 16 p 177  
 Unprecedented Pig-Iron Situation, Oct 15 p 919  
 Unsatisfactory Pig-Iron Buying, Dec 17 p 1417  
 Advertising:  
 Capitalizing Failures in, Sept 3 p 568  
 Duty on Matter to Canada, Sept 24 p 726; Oct 1 p 783; Oct 8 p 842  
 Some Suggestions, Aug 13 p 386  
 Waste in Circular, Sept 3 p 568  
 Aiken, W. A.:  
 Blast-Furnace Slag as Aggregate in Concrete, July 23 p 201  
 Air Compressors:  
 General Electric, for Blowing Cupolas,\* Sept 3 p 541  
 Richards Starting Unloader,\* July 30 p 268  
 Wernicke-Hatcher Single-Stage Rotary,\* Oct 29 p 991  
 Ajax Metal Company:  
 Brass Melting in Electric Furnace,\* Dec 31 p 1492  
 Akron Gear & Engineering Company:  
 Three-Cone Friction Clutch,\* July 30 p 265  
 Alexander, M. W.:  
 Safety Devices for Foundry, Nov 26 pp 1241 and 1260  
 Waste in Hiring and Discharging Men, Oct 29 p 1032  
 Allan, A. C.:  
 Self-Adjusting Wrench,\* Dec 3 p 1287  
 Allen-Bradley Company:  
 Compression Starters for Motors,\* Oct 8 p 831  
 Allen, Edgar, American Manganese Steel Company:  
 Large Manganese Steel Dredge Dippers,\* Nov 26 p 1237  
 Wood Special Straightening Press,\* Sept 10 p 609  
 Alloy Steel Forging Company:  
 To Enlarge, Dec 3 p 1277  
 Alsace-Lorraine:  
 Large Iron Output 1913, Sept 3 p 543  
 Alton Steel Company:  
 In Receiver's Hands, July 16 p 159  
 Aluminum:  
 Supply and Future Price,\* Oct 8 p 838  
 Aluminum Castings Company:  
 Sand Mixing Plant,\* Dec 3 p 1273  
 Scientific Management,\* Sept 3 p 523  
 Aluminum Company of America:  
 Data on Aluminum, Aug 6 p 326  
 Amalgamated Association:  
 Failure of Conference, July 2 p 55

Iron Rolling Mill Scale Agreement, July 16 p 177  
 American Association for Labor Legislation:  
 Convention Programme, Dec 17 p 1421  
 American Boiler Manufacturers' Association:  
 Announcement of Convention, July 23 p 193  
 Convention Programme, Aug 27 p 495  
 Proceedings of Convention, Sept 10 p 620  
 American Bridge Company:  
 Western Engineers to Visit Ambridge, Aug 6 p 359  
 American Business Men in British Eyes, Nov 5 p 1089  
 American Car & Foundry Company:  
 Annual Report, July 2 p 56  
 American Drop Forgers Association,  
 Nov 19 p 1209  
 American Express Company:  
 Investigation in South America,  
 Oct 1 p 799  
 American Foundrymen's Association:  
 (See Foundrymen's Associations)  
 American Grondal Company:  
 Greenawalt Iron-Ore Sintering Plants, Oct 1 p 775  
 American Institute of Chemical Engineers:  
 Announcement of Annual Meeting,  
 Nov 19 p 1209  
 American Institute of Metals:  
 Announcement of Programme, July 2 p 39; Sept 3 p 556\*  
 Convention Papers, Aug 27 p 489  
 Convention Proceedings,\* Sept 10 p 642; Sept 17 p 688  
 Meeting in 1915, Nov 19 p 1209  
 American Institute of Mining Engineers:  
 Announcement of October Meeting,  
 July 2 p 13  
 Convention Papers, Sept 10 p 627;  
 Oct 1 p 806  
 Convention Proceedings, Oct 15 p 892  
 American Iron and Steel Institute:  
 Announcement of October Meeting,  
 July 2 p 55  
 Bar Output, 1913, Aug 20 p 460  
 Canadian Steel and Pig-Iron Output, Sept 3 p 565  
 Editorial on Birmingham Meeting,  
 Nov 5 p 1086  
 Editorial on Sheet and Tin Plate Production, 1913, July 23 p 213  
 New Members, July 2 p 55; Oct 1 p 803; Nov 12 p 1133; Dec 24 p 1453  
 Output of Steel in 1913, July 23 p 230  
 Pig-Iron Production First Half, Aug 20 p 434  
 Plate, Sheet and Tin-Plate Production in 1913, July 23 p 234  
 Proceedings of Convention, Nov 5 pp 1076 and 1105  
 Programme for Fall Meeting, Sept 10 p 603; Oct 1 p 803; Oct 22 p 974  
 American Iron & Steel Mfg. Company:  
 Powdered Coal in Furnaces,\* July 9 p 80

American Locomotive Company:  
 Annual Report, Sept 24 p 741  
 Powdered Coal in Furnaces,\* July 9 p 80  
 Vibratory Testing Machine,\* July 9 p 84  
 American Machine & Foundry Company:  
 Seeking New Field, Sept 24 p 714  
 American Manganese Mfg. Company:  
 Acquires Dunbar Furnace Company Holdings, July 16 p 180  
 Dunbar Furnace Plans, Aug 20 p 439  
 Ferromanganese to be Manufactured, Sept 24 p 721  
 Making Ferromanganese at Dunbar, Nov 5 p 1059  
 American Manufacturers' Export Association:  
 Meeting, Oct 22 p 957  
 Proceedings of Convention, Oct 29 p 1034  
 American Musical Supply Company:  
 Increased American Tuning Pin Supply, Oct 1 p 800  
 American Roller Bearing Company:  
 Heavy Machinery Roller Bearings, Dec 10 p 1355  
 American Shipbuilding Company:  
 Annual Report, Oct 22 p 935  
 American Society for Testing Materials:  
 Convention Proceedings, July 2 p 62; July 9 pp 95 and 118  
 American Society of Mechanical Engineers:  
 Annual Meeting Programme, Nov 12 p 1147  
 Boiler Specifications Hearing, Sept 10 p 613  
 Proceedings of Convention, Dec 10 p 1347  
 Service Scored, Dec 24 p 1452  
 Topics for International Congress in 1915, July 16 p 143  
 Working for Steam Boiler Specifications, Sept 17 p 691  
 American Steel & Wire Company:  
 Steel Plant Workers Gardens,\* Oct 1 p 768  
 American Steel Company:  
 Buys Coke Plants, Dec 24 p 1452  
 American Supply & Machinery Manufacturers' Association:  
 Convention Announcement, Dec 24 p 1439  
 American Vanadium Company:  
 Vanadium Steel Hammer Piston, Sept 17 p 666  
 Vanadium Steel Rails, Oct 15 p 887  
 American Zinc & Smelting Company:  
 Under-Water Coal Storage, Sept 24 p 714  
 Ams, Max, Machine Company:  
 New Plant, Sept 17 p 661  
 Andersen, Alfred G.:  
 Early Panama Exposition Exhibitors, Nov 19 p 1182  
 Anderson Forge & Machine Company:  
 Heat-Treating Plant,\* Dec 3 p 1284  
 Anderson Rolled Gear Forging Company:  
 Hot Rolled Gears,\* Aug 20 p 425  
 Applegate, Kenneth P.:  
 Titanium and the Magnetic Properties of Iron, July 2 p 53

- Arc Lamp, Flaming, in Steel Industry, Oct 22 p 947
- Argentina:  
Imports, Aug 20 p 458  
Our Trade with, Dec 3 p 1319
- Armor and Shells, Bidders for, Nov 5 p 1049
- Armor Plate, Bethlehem Steel Company Low Bidder on, Oct 15 p 900
- Armstrong Brothers Tool Company:  
Safety Lathe Dog,\* Nov 12 p 1125
- Armstrong Cork & Insulation Company:  
Refrigerated Drinking Water, Sept 3 p 589
- Armstrong-Whitworth of Canada, Ltd.:  
Opening of Plant, Dec 31 p 1487
- Art Metal Construction Company:  
Employers Want Ideas, Nov 12 p 1117
- Artillery, Belgian and French, Aug 20 p 420
- Ashes and Slag, Charges for "Wasting," Aug 27 p 514
- Asia:  
Blast-Furnace Projects, Oct 1 p 776
- Associated Industries:  
New Organization at Buffalo, July 16 p 141
- Association of Iron and Steel Electrical Engineers:  
Coming Convention Papers, July 23 p 211  
Convention Programme, Sept 10 p 619  
Proceedings of Convention, Sept 24 p 718
- Atkins, E. C. & Co.:  
Record of Welded Hack Saw Blade, Sept 17 p 661  
Test of a Circular Saw, Oct 1 p 772
- Attaches, Records of New Commercial, Oct 8 p 858
- Atwater, R. M., Jr.:  
May Smelt Bolivian Tin Here, Oct 29 p 1010
- Auel, Carl B.:  
Standardization in Factory,\* Dec 3 p 1280
- Aupperle, J. A.:  
Tin and Terne Plates,\* July 23 p 206
- Aurora Tool Works:  
Compound Table for Drilling Machines,\* Oct 22 p 941
- Australia:  
Broken Hill Proprietary Company's Works, Sept 24 p 715  
War Advance in Steel Prices, Nov 26 p 1263
- Austria:  
Steel Trade Conditions, Oct 8 p 845  
Styrian Erzberg Iron-Ore Output,\* Aug 27 p 482
- Automatic Drill Chuck Corporation:  
Quietite Drill Chuck,\* July 16 p 151
- Automobiles:  
Brown Hoisting Power Crane,\* Aug 27 p 484  
Cowan Elevating Truck,\* Oct 15 p 879  
Industry Statistics, Nov 5 p 1052  
Making Electric Starting Outfits,\* Oct 15 p 875  
Rapid Finishing of Castings,\* Dec 3 p 1282
- Avery, B. F., & Sons:  
Safety First Booklet, Oct 15, p 887
- Axles, Internal Fissures in,\* July 16 p 144
- B
- Babcock, George De A.:  
Applied Scientific Management,\* July 2 p 14; July 9 p 90; July 16 p 134  
Factory Planning Department,\* Nov 5 p 1068
- Bachman, F. E.:  
Titaniferous Ores in Blast Furnace, Dec 24 p 1470
- Backert, A. O.:  
Selling Price of Castings, Oct 22 p 933
- Bagley, Mills & Co.:  
Benzol Recovery Plant at Farrell, July 23 p 235
- Bailey, George M.:  
Repairing Malleable Castings, Aug 6 p 333
- Baker Brothers:  
Rapid Drilling Machine,\* Nov 19 p 1171
- Band, Workmen's Children, Portsmouth Steel Company, Nov 5 p 1083
- Banfield, Robert T.:  
Patent for Making Iron and Steel Sheets, Oct 1 p 805
- Bank to Aid Export Trade, National City, July 9 p 88
- Banking System Launched, Aug 13 p 385
- Banks of South America, United States, Oct 29 p 1026
- Banner, Otto:  
Turbo-Blowers, Nov 5 p 1104
- Bar Guard for Concrete, Trussed Steel,\* Aug 27 p 487
- Barber & Ross:  
Long Use, Shop Machine,\* Sept 24 p 714
- Barges, Self-Propelled Coal,\* Aug 6 p 307
- Barnes Drill Company:  
All-Geared Gang Drilling Machine,\* Oct 1 p 772
- Barnes, E. A.:  
Drop-Pouring for Casting,\* Sept 10 p 612
- Barnes, W. F. & John, Company:  
Screw Cutting Engine Lathe,\* Sept 3 p 550
- Barnum Richardson Company:  
Historic Connecticut Iron Making, July 30 p 254
- Barometer Recorder, Uehling, July 30 p 269
- Barr, H. Edsill:  
Pneumatic Hammer,\* Nov 19 p 1175
- Barrett, John:  
Note of Caution and Warning, Oct 1 p 799
- Bars:  
And Pipe in the Iron Column, Dec 3 p 1298  
Cambria Deformed Reinforcing,\* July 2 p 22  
Testing Reinforcing, Aug 6 p 323
- Bausch Machine Tool Company:  
Drilling Machine, 46-Hole,\* Oct 1 p 758  
Multiple Drilling Machine,\* July 30 p 251  
Semi-Automatic Drilling Machine,\* Nov 5 p 1059  
Universal Horizontal Drilling Machine,\* Dec 3 p 1286
- Bearings:  
American Roller, Dec 10 p 1355  
Bock Test of Taper Roller,\* Oct 29 p 1004  
Stow Device for Tapered Bushings,\* Sept 24 p 709
- Becker, Frank J.:  
Molding Frame, July 30 p 252;\* Aug 6 p 315
- Belgium:  
Seat of War,\* Aug 20 p 420  
War Effect on Steel Works, Sept 24 p 745
- Belt, Long, Gandy, Nov 26 p 1233
- Bemis, Edgar W.:  
Milling Machine Attachment,\* July 2 p 13
- Bending Brake, Dreis & Krump Power,\* Oct 29 p 996
- Bending Machine for Sheets, Niagara,\* Oct 29 p 990
- Benney, William M.:  
South American Machinery Trade, Aug 27 p 486
- Benzol Recovery at Farrell, July 23 p 235
- Bernard and Guillet:  
Methods for Local Case Hardening, Dec 31 p 1529
- Bernhardt, Fr.:  
Talbot and Other Furnaces, Nov 12 p 1118
- Besly, Charles H. & Co.:  
Disk Grinding Machine,\* July 23 p 207  
Grinding and Sanding Machine,\* Sept 3 p 552
- Bethlehem Steel Company:  
Laboratory,\* Sept 24 p 710  
Low Armor Plate Bidder, Oct 15 p 900  
Operations at Tofo Iron Mines, 1914,\* Dec 24 p 1448  
Successful Armor and Shells Bidder, Nov 5 p 1049
- Billets, Rowley Casting Method, July 2 p 56
- Billings & Spencer Company:  
To Expand, July 9 p 94  
Wrench Sizes for Nuts, Sept 3 p 589
- Birdsboro Steel Foundry & Machine Company:  
Production of Turbine Castings,\* Aug 27 p 481
- Bitterfeld Electrochemical Works:  
Boron in Iron and Steel, Nov 19 p 1172
- Blooming Mill Engine Test, Brier Hill,\* Dec 3 p 1278
- Blowers, Turbo, Nov 5 p 1104
- Blowpipes, Sanitary Mouth Piece for,\* Dec 24 p 1445
- Bock Bearing Company:  
Taper Roller Bearing Test,\* Oct 29 p 1004
- Bodwell, H. L.:  
Steel Plant Repair Department, Nov 5 p 1055
- Boiler Manufacturers:  
(See American Boiler Manufacturers' Association)
- Boilers:  
For Uniform Specifications, Sept 17 p 691  
Hearing on Specifications, Sept 10 p 613  
Removal of Ship's,\* Nov 5 p 1067  
Specifications for Tubes, Dec 17 p 1418
- Boker, Hermann, & Co.:  
In Receiver's Hands, Sept 10 p 629
- Bolivian Tin:  
May Smelt Here, Oct 29 p 1010  
Seaboard Smelter For, Nov 19 p 1205  
Tin Smelted at New York, Aug 20 p 459  
Valorization for Tin Concentrates, Sept 10 p 646
- Bollinger Brothers:  
Completing New Plant, Oct 1 p 806  
Bolt Head Trimming Machine, Waterbury Farrell,\* Oct 29 p 997
- Bonner Tool Company:  
To Reorganize, Oct 15 p 891
- Bonus Wage Payment, Modified,\* Dec 17 p 1384
- Book Reviews:  
American Machinists' Handbook, Aug 20 p 464  
Business Administration, July 30 p 290  
Cambria Steel, July 2 p 61  
Chemical Analysis of Special Steels, Nov 5 p 1084  
Cleaning Blast Furnace Gases, Nov 5 p 1084  
Examination of Lubricating Oils, Nov 5 p 1084  
Export Trade Directory, Dec 24 p 1466  
Fan Engineering, July 16 p 175  
Gas, Gasoline and Oil Engines, Oct 22 p 972  
Graphic Methods for Presenting Facts, Dec 17 p 1417  
Handbook of Construction Plant, Nov 5 p 1084  
Hendricks's Commercial Register, Oct 22 p 972



- Iron Ores of Lake Superior, Nov 26 p 1235
- Iron Ores: Their Occurrence, Valuation and Control, Oct 8 p 858
- McAndrew's Floating School, July 2 p 61
- Mechanical Movements — Powers and Devices, July 30 p 290
- Metallurgy, Nov 26 p 1234
- Methods of Machine Shop Work, Nov 26 p 1234
- Pattern Making, Oct 22 p 972
- Poor's Manual of Industrials, Sept 24 p 747
- Poor's Manual of Public Utilities, July 16 p 175
- Railway Library for 1913, Nov 5 p 1084
- Steam Pipes, Their Construction and Arrangement, July 16 p 175
- Steel Working and Tool Dressing, Sept 24 p 747
- Telephone Construction, Etc., July 16 p 175
- The Job, The Man, The Boss, July 2 p 61
- Tin Plate Industry, Sept 24 p 747
- Boring Bar:  
Kelly Lathe Head,\* Oct 29 p 1003
- Boring Machines:  
Niles-Bement-Pond Gigantic,\* Sept 24 p 706
- Niles - Bement - Pond Horizontal,\* Aug 27 p 485
- Boring Mills:  
Electric Controller, Reversing Drive,\* Dec 10 p 1345
- Boron in Steel and Iron, Nov 19 p 1172
- Bourne-Fuller Company:  
Heavy Material Warehouse,\* Sept 10 p 602
- Bowman-Blackman Machine Tool Company:  
Time to Put Plant in Order, Dec 17 p 1416
- Bowron, James:  
Present Conditions, Dec 17 p 1421
- Southern Iron and Steel Industry, Nov 12 p 1126; Nov 19 p 1184; Nov 26 p 1228
- Braeburn Steel Company:  
Crucible Steel Manufacture,\* July 2 p 4
- Brakes:  
Dreis & Krump Power Bending,\* Oct 29 p 996
- General Electric Solenoid for Cranes,\* Nov 19 p 1177
- Brandon, G. R.:  
Foundry Cupola,\* Oct 15 p 890
- Brass Furnace Practice, Aug 20 p 438
- Brass Manufacturers:  
Annual Meeting, Dec 31 p 1501
- Catalogue, Oct 22 p 969
- Brassert, Hermann H.:  
American Blast Furnace Practice,\* July 2 p 30; July 9 p 92; July 16 pp 153 and 178
- Brazil:  
Iron and Steel and Machinery to, Aug 27 p 512
- Iron Industry,\* Oct 15 p 888
- Bremerhütte, A. G.:  
New German Plate Mill,\* Nov 19 p 1174
- Brick:  
Chrome and Magnesite by Weight, Dec 10 p 1367
- Nozzle for Foundry Ladles,\* Sept 24 p 708
- Brier Hill Steel Company:  
Bloomington-Mill Engine Test,\* Dec 3 p 1278
- Briquettes in Blast Furnace, Dec 17 p 1394
- Briquetting Ore, Nov 26 p 1258
- Bristol Company:  
Recording Instrument,\* Nov 26 p 1233
- British Topics:  
(See Great Britain)
- Brittleness in Soft Steel, Cause of,\* Dec 3 p 1322
- Broken Hill Proprietary Company:  
New South Wales Works, Sept 24 p 715
- Bronze, Manganese, as Engineering Material,\* Sept 3 p 538
- Brown & Sharpe Mfg. Company:  
Automatic Screw Machine,\* Aug 6 p 306
- Cutting Short Lead Spirals,\* Dec 3 p 1293
- Screw Machine with Single-Belt, July 30 p 271
- Brown Hoisting Machinery Company:  
Evolution of Car Dumper,\* Oct 29 p 985
- Power Crane for Automobile Trucks,\* Aug 27 p 484
- Brown Instrument Company:  
Resistance Type Thermometer,\* July 30, p 267
- Browning Company:  
Mammoth Locomotive Crane,\* Sept 24 p 716
- Bruce-Macbeth Engine Company:  
Steam as a By-Product,\* Oct 1 p 764
- Bryan, William J.:  
Fling at Manufacturers, Dec 3 p 1299
- Buckeye Engine Company:  
In Hands of Receiver, Aug 20 p 423
- Budget Making, Oct 1 p 804
- Build, A Time to, Dec 24 p 1450
- Builders' Hardware, Opening for American, Sept 10 p 645
- Bullard Machine Tool Company:  
Allots Eastern Territory, Sept 10 p 654
- Bunnell, Sterling H.:  
Cost from Selling Price, July 2 p 20
- Destruction of "Fireproof" Buildings,\* Dec 17 p 1381
- Burdett-Rowntree Mfg. Company:  
Automatic Dumbwaiter,\* Nov 26 p 1237
- Bureau of Standards:  
Finishing Temperatures in Rolling Rails, July 2 p 24
- Burman, Birger F.:  
Germany's Trade Position, Nov 5 p 1104
- Burr, John T., & Son:  
Cold Sawing Machine,\* Nov 26 p 1232
- Burro Mountain Copper Company:  
Nordberg Diesel Engine,\* Sept 10 p 601
- Burroughs Adding Machine Company:  
Heat-Treating Plant,\* Nov 12 p 1115
- Schooling the Organization, July 23 p 208
- Burt Mfg. Company:  
Belt-Driven Ventilator, July 30 p 253
- Business:  
Crisis—How Met, Sept 10 p 610
- Factors in the Situation, Nov 12 p 1130
- Prospects, Oct 15 p 898
- True Condition of, Oct 15 p 900
- Buying, Simultaneous, Urged to Start Revival, Dec 10 p 1352
- By-Products from Producer Gas, July 2 p 9
- C
- C & C Electric & Mfg. Company:  
Portable Arc Machine,\* Aug 6 p 319
- Cadmium, Automatic Fireman, Nov 12 p 1125
- Cadwallader, W. H.:  
General Manager, Union Switch & Signal Company,\* Aug 6 p 359
- Calorizing, for Coating Metals,\* Dec 17 p 1386
- Cambria Steel Company:  
Concrete Reinforcing Bar,\* July 2 p 22
- Sales Offices Move to Philadelphia, Sept 24 p 726
- Steel Tie,\* July 2 p 19
- Vanadium Steel Rails, Oct 15 p 887
- Campbell, J. R.:  
Coke Oven Appliance,\* Sept 17 p 660
- Campion and Gray:  
Oxy-Acetylene Welds, July 30 p 250
- Canada:  
Dominion Steel Company's Report, Nov 19 p 1209
- Duty on Advertising Matter, Sept 24 p 726; Oct 1 p 783; Oct 8 p 842
- Eastern Car Company Plant,\* Sept 24 p 703
- Electric Steel from Ore, Oct 15 p 877
- Iron Trade Prospects, Oct 22 p 953
- Moose Mountain Iron Ores, Oct 29 p 1025
- Notes, Sept 24 p 745
- Ship Subsidies, Oct 1 p 758
- Steel and Pig-Iron Output, Sept 3 p 565
- Steel Works Closed, Aug 27 p 510
- To Report Iron Mining, Oct 8 p 843
- Trade Under War Conditions, Sept 10 p 646
- War and Iron and Steel Trade, Aug 27 p 511
- Canal, Panama:  
(See Panama Canal)
- Canton Foundry & Machine Company:  
Portable Shearing Machine,\* July 2 p 23
- Carbon Hearths for Blast Furnaces, Sept 17 p 666
- Carbons, Larger Demand for Lighting, Oct 29 p 997
- Carnahan and Maskrey:  
Uniform Oxidizing of Sheets, Dec 17 p 1396
- Carnahan, John E.:  
Patent for Oxidized Finish for Sheets, Sept 24 p 754
- Carnegie Steel Company:  
Benzol Recovery Plant at Farrell, July 23 p 235
- Manganese Ore Prices, Sept 3 p 565
- May Reduce Wages, Oct 8 p 866
- Carpenter, Charles E.:  
American Machine Tools Abroad, Oct 15 p 896
- Carpenter, C. U.:  
Committees for Controlling Manufacture, Oct 8 p 822
- Carpenter, Prof. R. C.:  
Burning Pulverized Coal,\* July 16, p 148
- Carpenter Steel Company:  
Rolling Mill with Steam Turbine Drive,\* Nov 26 p 1221
- Cars:  
Better Movement, Oct 1 p 775
- Eastern Car Company Plant,\* Sept 24 p 703
- Evolution of Dumper,\* Oct 29 p 985
- Mammoth Freight, of the Future, Nov 26 p 1257
- No More Performance Statistics, Nov 26 p 1243
- Pennsylvania Steel Box Car, Aug 20 p 454
- Recent Development in Iron Ore,\* Sept 17 p 664
- Carwheels:  
From Chilled Cast Iron,\* July 16 p 136
- Case Hardening, Methods for Local, Dec 31 p 1529
- Cast Iron:  
Carwheels from Chilled,\* July 16 p 136
- Converting Into Steel or Malleable Iron, Hunter Patent for, Dec 24 p 1443
- International Specifications, July 2 p 63
- With Unusual Structure,\* Nov 12 p 1120

## Castings:

- As Electrical Apparatus Parts, Dec 31 p 1496  
 Coloring Patterns for, Nov 19 p 1179; Dec 3 p 1300  
 Drop-Pouring for,\* Sept 10 p 612  
 Dry and Green Sand, Sept 3 p 534  
 Finishing of Automobile,\* Dec 3 p 1282  
 Material for High Grade, Nov 12 p 1151  
 Modern Practice in Die, Sept 24 p 722  
 New Way to Make High Manganese Steel, Dec 31 p 1485  
 Preventing Piping in Steel,\* Oct 8 p 834  
 Prime Steel Company's Methods,\* Oct 22 p 929  
 Production of Turbine,\* Aug 27 p 481  
 Repairing Malleable, Aug 6 p 333  
 Selling Price of, Oct 22 p 933  
 Strength and Ductility of Malleable,\* Oct 22 p 948  
 Strength of Non-Ferrous,\* Aug 13 p 370  
 Welding Malleable, July 16 p 152  
 Catalogue Suggestions:  
 For South America, Nov 5 p 1103  
 Some, July 30 p 234  
 Catasauqua, Pa.:  
 Seventy-five Years of Anthracite Pig Iron, July 2 p 60  
 Catskill Aqueduct, Narrows Siphon of,\* Aug 13, p 365  
 Census Bureau:  
 Pig-Iron Schedule, 1914, July 16 p 176  
 Schedules for Machinery and Engines, Nov 12 p 1155  
 Steel Schedule, 1914, July 9 p 119; July 30 p 292  
 Central Steel Company:  
 Incorporated, July 2 p 39  
 Chain:  
 Export Order for, Dec 3 p 1325  
 Tariff Hurtful to Manufacture, Dec 17 p 1402  
 Chain Belt Company:  
 Conveyor for Hot Shells,\* July 9 p 79  
 Challenge Machine Company:  
 Protected Grinding Machine,\* Oct 8 p 832  
 Chambers, T. N.:  
 Catalogue Suggestions for South America, Nov 5 p 1103  
 Channels and Z-Bars, Roll Passes for,\* Dec 24 p 1467  
 Chapin, G. L.:  
 Lighting of Plants,\* Nov 19 p 1180  
 Charging Machine, Taylor-Wilson Skelp,\* Dec 31 p 1483  
 Chart, Structural Designing, Aug 20 p 428  
 Chase, C. A.:  
 Compensation Act and Married Workmen, Aug 6 p 332  
 Employers' Liability Legislation, Nov 26 p 1239  
 Chateaugay Pig-Iron Analyses, Dec. 17 p 1417  
 Chattanooga Enameling & Stamping Company, Dec 17 p 1397  
 Chattanooga Gas & Coal Products Company:  
 By-Product Coke Ovens, Dec 31 p 1518  
 Coke Plant Contracts, Dec 17 p 1422  
 Chemical Engineers:  
 (See American Institute of Chemical Engineers)  
 Chemical Products Shortage, Sept 24 p 727  
 Chicago:  
 New Steel Buildings, Oct 15 p 886  
 Vessel to South America, Sept 3 p 587  
 Chicago Pneumatic Tool Company:  
 Duntley Drill on Radial Machine,\* July 30 p 264

## Chile:

- Coming Pan-American Congress, Oct 8 p 860  
 Importance of (Cincinnati Export Club Discussion), Aug 20 p 457  
 Operations at Tofo Mines, 1914,\* Dec 24 p 1448  
 China:  
 New Blast Furnaces May Ship to the United States, Nov 19 p 1191  
 New Furnaces on American Lines, Dec 3 p 1300  
 Chisel, Test of Mayari Steel,\* Dec 3 p 1323  
 Christianson, Peter:  
 Peat in Iron-Ore Industry, Aug 27 p 490  
 Chrome Tool Steel Tubing, German and Swedish, Sept 24 p 726  
 Chrome-Vanadium Rolled Steel, Wheels, Aug 20 p 423  
 Chucks:  
 Heald, Magnetic,\* July 2 p 7  
 Horton Combination Scroll,\* Dec 3 p 1279  
 Landau Multiple Spindle,\* July 30 p 269  
 Quiclite Automatic Drill,\* July 16 p 151  
 Cincinnati Business Men's Club, Nov 19 p 1175  
 Cincinnati Foundry Company:  
 New Foundry,\* Sept 3 p 542  
 Cincinnati Iron & Steel Company:  
 Improved 16-in. Lathe,\* Nov 26 p 1225  
 Cincinnati Planer Company:  
 Self-Contained Planing Machine,\* Dec 31 p 1484  
 Cincinnati Pulley Machinery Company:  
 Automatic-Power Feed Drilling Machine,\* Dec 3 p 1291  
 Replacing a Burned Plant,\* July 2 p 8  
 Clamer and Hering:  
 Brass Melting in Electric Furnace,\* Dec 31 p 1492  
 Clark Flexible Coupling Company:  
 Quickly Attachable Coupling,\* Oct 1 p 775  
 Clayton Anti-Trust Bill:  
 Amending the, July 9 p 122  
 As Reported to Senate, July 23 p 233  
 Fogging an Issue, July 16 p 156  
 Jobbers Meet the President, Aug 6 p 350  
 Labor Combinations and the, Nov 26 p 1260  
 Labor Unions Dictate, Sept 10 p 647  
 Provisions Agreed Upon, Oct 1 p 797  
 Cleveland:  
 Conditions in Metal Trades, Dec 3 p 1276  
 Export Club—European Machinery Trade, Sept 17 p 694  
 Manufacturers and Export Trade, Sept 3 p 588  
 Cleveland-Cliffs Iron Company:  
 Steel Ore Stocking Trestle,\* Oct 22 p 940  
 Cleveland Crane & Engineering Company:  
 Crane Orders, Oct 22 p 976  
 Cleveland Hardware Company:  
 Departure in Industrial Management,\* July 2 p 1  
 Roof Garden on Factory,\* Oct 1 p 755  
 Cleveland Machine & Mfg. Company:  
 Double-Crank Massive Press,\* Oct 1 p 767  
 Cleveland Punch & Shear Works Company:  
 Open Gap Punching Machine,\* July 16, p 139  
 Plate Shearing Machines,\* Nov 12 p 1119

- Cleveland Railway Supply Company's Locomotive Crane,\* Dec 31 p 1488  
 Clifford, G. C.:  
 Handling Corrosive Liquids,\* Oct 22 p 945  
 Clutch, Akron Gear Three-Cone Friction,\* July 30 p 265  
 Coal:  
 Burning Pulverized,\* July 16 p 148  
 Evolution of the Car Dumper,\* Oct 29 p 985  
 Handling from Car to Ship, Oct 1 p 765  
 Michigan Tonnage Tax, Aug 27 p 480  
 Patent Fuel Process, July 23 p 199  
 Powdered, for Heating Furnaces,\* Nov 5 p 1045  
 Powdered in Industrial Furnaces,\* July 9 p 80  
 Pulverized, for Steam Making, July 9 p 83  
 Record Output, 1913, July 30 p 247  
 Self-Propelled Southern Barges,\* Aug 6 p 307  
 Under-Water Storage, Sept 24 p 714  
 United States, for South America, Sept 24 p 744  
 World's Production, Nov 5 p 1085  
 Coating, Epicassit, a Protective Metal, Oct 8 p 837  
 Coating Metals, Calorizing,\* Dec 17 p 1386  
 Cochrane & Co.:  
 Record Life for a Blast Furnace Lining, July 2 p 9  
 Coil Forming Machine, Garvin Copper,\* July 23 p 193  
 Coke:  
 By-Product Ovens in Russia, July 23 p 197  
 Causes of Foundry Troubles, Dec 10 p 1348  
 Chattanooga By-Product Ovens, Dec 17 p 1422; Dec 31 p 1518  
 Maryland Steel Company's By-Product Ovens,\* Nov 19 p 1165  
 Of the Cupola Dump, Nov 5 p 1073  
 Oven Appliances,\* Sept 17 p 660  
 Republic Company's By-Product Plant,\* Dec 24 p 1433  
 War Stops New Buffalo Coke Plant, Aug 20 p 439  
 Colorado Fuel & Iron Company:  
 Annual Report, Nov 5 p 1072; Nov 19 p 1191  
 Coloring Patterns for Castings, Nov 19 p 1179; Dec 3 p 1300  
 Columbus, Ohio:  
 Industrial Safety Exposition, Dec 3 p 1291  
 Commission Bill, Trade, Aug 13 pp 381 and 387  
 Compensation:  
 Acts and Industrial Diseases, Oct 1 p 807  
 Kentucky Act Invalid, Dec 24 p 1452  
 Laws and Married Men, Oct 22 p 954  
 Massachusetts, Oct 29 p 1006  
 Massachusetts Act's First Year, Aug 20 p 432  
 New York Act, Married Workmen, Aug 6 p 332; Aug 20 p 430  
 Wanted—a Model Bill, Nov 26 p 1242  
 Compressors, Air:  
 Ingersoll-Rand Small Portable, Dec 17 p 1392  
 Wernicke-Hatcher Pump Company,\* Oct 29 p 991  
 Conant & Donelson Company:  
 Hexagon Screw Plate Guide,\* Dec 31 p 1488  
 Concentration by Goltra Process, Nov 12 p 1148  
 Concrete Edges, Bar Guard for,\* Aug 27 p 487  
 Concrete Factory, Reinforced, Dec 31 p 1525  
 Condenser, Wheeler Self-Contained Jet,\* Oct 15 p 886

- Cone, Edwin F.:  
 Historic Iron Making in Connecticut,\* July 30 p 250  
 Titanium Ores in Blast Furnace,\* Oct 22 p 936  
 Conservation of Human Resources, American—A Contrast, Sept 24 p 727  
 Construction by Small Interest, New, July 9 p 98  
 Construction News, Works, Value of, Aug 27 p 488  
 Consular Service, Bill to Reform, Oct 29 p 1007  
 Contraband of War, Aug 13 p 402; Aug 20 p 433; Oct 8 p 832; Nov 19 p 1207  
 Controllers for Cranes, Westinghouse,\* Aug 13 p 373  
 Controlling Manufacture, Committees for, Oct 8 p 822  
 Conventions:  
 American Boiler Manufacturers' Association, Sept 10 p 620  
 American Foundrymen's Association, Sept 10 p 642\*; Sept 17 pp 667 and 687  
 American Institute of Metals,\* Sept 10 p 642; Sept 17 p 688  
 American Institute of Mining Engineers, Oct 15 p 892  
 American Iron and Steel Institute,\* Nov 5 pp 1076 and 1105  
 American Society for Testing Materials, July 2 p 62; July 9 pp 95 and 118  
 American Society of Mechanical Engineers, Dec 10 p 1347  
 Associated Foundry Foremen,\* Sept 10 p 642; Sept 17 pp 667 and 687  
 Association of Iron and Steel Electrical Engineers, Sept 24 p 718  
 Efficiency Society, Sept 24 p 721  
 Lake Superior Mining Institute, Sept 10 p 626  
 National Council for Industrial Safety, Oct 15 p 897; Oct 22 p 946  
 National Founders' Association, Nov 19 p 1191; Nov 26 pp 1238 and 1260  
 Pennsylvania Industrial Welfare and Efficiency, Nov 26 p 1231  
 Railway Business Association, Dec 17 p 1426  
 Converters, Ganister-Lined, Dec 3 p 1292  
 Conveyor for Hot Shells,\* July 9 p 79  
 Cook, Edgar S.:  
 American Blast Furnace Practice,\* July 23 p 202  
 Cooley, James E.:  
 Improved Danger Sign,\* July 16 p 149  
 Ladder Safety Attachment,\* Sept 10 p 613  
 Safety Roller for Skids,\* Nov 12 p 1124  
 Sanitary Blowpipe Mouth Piece,\* Dec 24 p 1445  
 Co-Operation, Economies by, Nov 19 p 1183  
 Copper:  
 European Stocks of, Dec 24 p 1465  
 Michigan Tonnage Tax on, Aug 27 p 480  
 Production and Stock, June, July 16 p 141  
 World's Production, Dec 3 p 1292  
 Copper Coil Radiator Company:  
 Gas-Heated Hot-Water Radiator,\* Nov 19 p 1172  
 Corbin, Arthur E.:  
 Training Employees, July 30 p 259; Sept 3 p 568  
 Cores:  
 Green Sand, Oct 1 p 774  
 Scott-Johnson All-Metal Box for Making, Sept 3 p 537  
 Cornwall Ore Bank Company:  
 First Steel Ore Stocking Trestle,\* Nov. 12 p 1132  
 Corrigan, McKinney & Co.:  
 Blast Furnace at Cleveland, July 2 p 16  
 New River Furnaces at Cleveland, July 30 p 293  
 Corrosive Liquids, Handling,\* Oct 22 p 945  
 Corrugating Rolls, Test of,\* Nov 19 p 1177  
 Costs:  
 Finding, from Selling Price, July 2 p 20  
 Minimizing Special Tool Work, July 2 p 26  
 Cotton in Texas, Storing, Sept 24 p 720  
 Coupling:  
 Clark Flexible,\* Oct 1 p 775  
 Smith-Serrell Double-Ring Shaft,\* Nov 12 p 1124  
 Cowan Truck Company:  
 Storage Battery Elevating Truck,\* Oct 15 p 879  
 Cowper-Coles, Sherard:  
 Origin of Sherardizing, Nov. 26 p 1244  
 Crain, G. D., Jr.:  
 Catalogue Suggestions, July 30 p 264  
 Cutting Handling Costs in a Jobbing Plant,\* July 16 p 131  
 "Good Fellow" Salesman Disappearing, July 2 p 38  
 Cranes:  
 Brown Hoisting Power,\* Aug 27 p 484  
 Cleveland Locomotive,\* Dec 31 p 1488  
 Cleveland Orders, Oct 22 p 976  
 General Electric Automatic Brake for,\* Nov 19 p 1177  
 Handling Patterns with a Jib,\* Nov 12 p 1125  
 Mammoth Browning Locomotive,\* Sept 24 p 716  
 Northern Trolley,\* Dec 17 p 1396  
 Panama Exposition Machinery Hall,\* Dec 10 p 1333  
 Patterson Hook Block,\* July 9 p 78  
 Westinghouse Controllers for Electric,\* Aug 13 p 373  
 Westinghouse Protective Panel for,\* July 30 p 253  
 Crisis, Business—How Met, Sept 10 p 610  
 Croxton, David T.:  
 Efficiency System,\* July 2 p 57  
 Crozier, Brigadier-General:  
 Watertown Arsenal Time Study and Bonus, Nov 19 p 1178  
 Crucible Steel Manufacture,\* July 2 p 4  
 Crucible Steel Company:  
 Annual Report, Nov 12 p 1129  
 Cuba:  
 War and Our Trade with, Oct 22 p 973  
 Cupola:  
 Design of Foundry,\* Oct 15 p 890  
 Device to Prevent Explosions,\* July 30 p 250  
 Tapping Device,\* Aug 13 p 374  
 Curtis, Hobart W.:  
 Safety Saw Guard,\* Dec 31 p 1486  
 Cushing, Marshall:  
 Employers' Liability Legislation, Nov 26 p 1240  
 Customs Controversy, Important, Nov 19 p 1190  
 Customs Decisions:  
 Ball Bearings, Oct 22 p 969  
 Ball Bearings as Washers, Dec 31 p 1515  
 Bronze Wire Cloth, Oct 22 p 969  
 Card Clothing Grinders Are Machine Tools, Dec 31 p 1515  
 Cast-Iron Articles, Dec 3 p 1332  
 Certain Steel Products Classified, Aug 20 p 439  
 Chain-Making Machines, July 9 p 121  
 Crucible Steel Strips, Oct 22 p 969  
 Duty on Tube-Welding Machines, Aug 20 p 425  
 Iron or Steel Drums for Containers, Dec 31 p 1515  
 Jewelers' Lathes Not Machine Tools; Dec 31 p 1515  
 Machine-Tool Classification, Dec 3 p 1332  
 Machines for Shaving Asbestos, July 9 p 212  
 Parts of Turret Lathe, Dec. 10 p 1346  
 Shipbuilding Tools Not Free, Dec 31 p 1515  
 Steel in Strips, Oct 22 p 969  
 Threshing Machine Self-Feeders, Dec 31 p 1515  
 Cutler, F. G.:  
 Turbo-Blower for Blast Furnace,\* Oct. 29 p 998  
 Cutler-Hammer Mfg. Company:  
 Magnetic Lock-Out Switches, Dec 10 p 1339  
 Cyclical Depressions—An Obituary, Sept 17 p 670  
 Cyclops Iron Works:  
 Machinery Hall Cranes, Panama Exposition,\* Dec 10 p 1333  
 D  
 Dalton, A. C.:  
 Steel Direct from Ore,\* Oct 15 p 877  
 Dalton and Quigley:  
 Powdered Coal in Furnaces,\* July 9 p 80  
 Dalton Machine Company:  
 Bench Lathe,\* Sept 10 p 619  
 Danger Sign:  
 For One Universal, Oct 29 p 1030  
 Improved,\* July 16 p 149  
 Davie, H. W.:  
 Goggles for Grinders, Dec 24 p 1469  
 Dean, F. W.:  
 Reinforced Concrete Factory Buildings, Dec 31 p 1525  
 Decarbonization of Tool Steel, Surface,\* Dec 3 p 1288  
 Decarburization of Steel,\* Oct 22 p 934  
 Decisions of Interest to Manufacturers, Judicial, July 16 p 179; July 23 p 243; July 30 p 301; Aug 6 p 363; Aug 13 p 402; Sept 3 p 590; Oct 22 p 983; Nov 5 p 1104; Nov 19 p 1210; Nov 26 p 1272; Dec 3 p 1315  
 Depressions and Panics, Oct 8 p 842  
 Detrick & Harvey Machine Company:  
 Gun Boring Lathe,\* Dec 31 p 1486  
 Detroit Board of Commerce:  
 "Made in the U. S. A." Trademark, Dec 17 p 1385  
 Detroit Twist Drill Company:  
 World's Drilling Record, Sept 24 p 720; Oct 8 p 863  
 Diamond Machine Company:  
 Automatic Surface Grinding Machine,\* Sept 3 p 547  
 Dickinson, W. N.:  
 Economies by Co-Operation, Nov 19 p 1183  
 Die-Casting Practice, Sept 24 p 722  
 Diesel Engine, Largest American,\* Aug 13 p 369  
 Dippers, Large Dredge,\* Nov 26 p 1237  
 Discharging and Hiring Men, Waste in, Oct 29 p 1032  
 Diseases, Industrial, and Compensation Acts, Oct 1 p 807  
 Doehler Die-Casting Company:  
 Practice in Die-Casting, Sept 24 p 722  
 Dominion Steel Company:  
 Semiannual Report, Nov 19, p 1209  
 Donald, Percy G.:  
 Acknowledgment from a British Buyer, Sept 24 p 743  
 American Business Men in British Eyes, Nov 5 p 1089  
 Dowd, Albert A.:  
 Advantages of Special Tooling,\* Aug 6 p 327  
 Hardening Steel in a Forge, Sept 3 p 553



- Minimizing Cost of Special Tool Work, July 2 p 26  
 Mistakes in Factory Work,\* Aug 13 p 376  
 Draw Benches, Improved Waterbury Farrel,\* July 2 p 17  
 Drawback, Exports with, Dec 10 p 1372  
 Dredge Dippers, Large,\* Nov 26 p 1237  
 Dreis & Krump Mfg. Company: Power Bending Brake,\* Oct 29 p 996  
 Dreses, Henry: Prosperity to Follow War, Nov 12 p 1156  
 Drew, Walter: Evidence in Industrial Relations Investigation, Nov 26 p 1238  
 Drill Testing Machine, July 16 p 142  
 Drilling Machines: Aurora Compound Table for,\* Oct 22 p 941  
 Baker Brothers, for Rapid Work,\* Nov 19 p 1171  
 Barnes All-Geared Gang,\* Oct 1 p 772  
 Baush 46-Hole,\* Oct 1 p 758  
 Baush High-Speed Multiple,\* July 30 p 251  
 Baush Large Semi-Automatic,\* Nov 5 p 1059  
 Baush Universal Horizontal,\* Dec 3 p 1286  
 Chicago Pneumatic Duntley on a Radial Machine,\* July 30 p 264  
 Cincinnati Automatic Power Feed,\* Dec 3 p 1291  
 Henry & Wright Tapping Fixture,\* Oct 1 p 757  
 Landau Multiple Spindle Chuck for,\* July 30 p 269  
 National Automatic Heavy Multiple,\* Dec 3 p 1277  
 National Automatic Multiple-Spindle,\* July 30 p 270  
 National Heavy Multiple,\* Aug 27 p 477  
 Niles - Bement - Pond Horizontal,\* Aug 27 p 485  
 Quietite Automatic Chuck,\* July 16 p 151  
 Reed-Prentice Four-Way,\* Oct 1 p 770  
 Sipp Sensitive,\* Dec 31 p 1528  
 Triangular, for Procuring Test Specimens, Nov 26 p 1227  
 Valley City Pipe,\* Dec 31 p 1490  
 Willmarth Radial,\* Dec. 31 p 1487  
 Drilling Record, World's, Sept 24 p 720  
 Drilling Tool, for Ratchet,\* July 16 p 152  
 Drinking Not Necessary to Secure Business, July 16 p 158  
 Drinking Water Systems, Refrigerated. Sept 3 p 589  
 Driver, C. H.: Sectional Rack for Holding Tools,\* Sept 10 p 611  
 Drop Forging Plant at Buffalo,\* Oct 8 p 817  
 Dry Cleaning Furnace Gas, July 30 p 261  
 Dudley, Dr. P. H.: Elimination of Seams in Steel Rails, Dec 10 p 1338  
 Dumbwaiter Which Discharges Its Own Load,\* Nov 26 p 1237  
 Dunbar Furnace Company: Taken Over by American Manganese Mfg. Company, July 16 p 180  
 Dunford & Elliott: Hollow Metal Rods, July 16 p 135  
 Duplex Process for Making Steel,\* Oct 15 p 882
- E
- Eastern Car Company, Ltd.: Plant,\* Sept 24 p 703
- Eastern Expanded Metal Company: Absorbed by Penn Metal Company, Dec 31 p 1517  
 Eastman Kodak Company: Specifications for Machinery Safeguards, Aug 20 p 454  
 Ebbw Steel, Iron & Coal Company: Electric Drive in Sheet Mill, Oct 29 p 1025  
 Eckel, Edwin C.: Supply and Future Price of Aluminum,\* Oct 8 p 838  
 Tin Prices Tend Upward, Aug 13 p 408  
 Economies by Co-operation, Nov 19 p 1183  
 Edison Lamp Works: Lighting,\* Nov 19 p 1180  
 Edison, Thomas A.: Recording Telephone Talks,\* Oct 1 p 769  
 Shortage in Chemical Products, Sept 24 p 727  
 Edison, Thomas A., Inc.: Rapid Destruction of "Fireproof" Buildings,\* Dec 17 p 1381  
 Editorials: Advance in Freight Rates, Dec 24 p 1450  
 Alignment of Scrap Prices, Nov 19 p 1189  
 An Achievement for 1915, Dec 31 p 1499  
 Balance of Trade Again in Our Favor, Oct 22 p 956  
 Bars and Pipe in the Iron Column, Dec 3 p 1298  
 Birmingham Steel Meeting, Nov 5 p 1086  
 British Foreign Trade in August, Sept 24 p 725  
 British Iron and Steel Exports for September, Oct 22 p 955  
 British Iron Trade Conditions, Oct 29 p 1009  
 Bryan's Fling at Manufacturers, Dec 2 p 1299  
 Business Prospects, Oct 15 p 898  
 Cast-Iron Pipe Trade, Nov 5 p 1088  
 Commerce Commission Reorganization, Dec 17 p 1401  
 Compensation Laws and Married Men, Oct 22 p 954  
 Constructive Congressional Legislation, Dec. 10 p 1351  
 Cyclical Depressions—An Obituary, Sept 17 p 670  
 Destination of Iron and Steel Exports, July 16 p 157  
 Dissolving a "Good" Trust, Aug 20 p 437  
 Dull Times Demand Patience, Aug 13 p 385  
 Eastern Rate Decision Gives Promise, Aug 27 p 493  
 Economy in Standardization, Dec 3 p 1299  
 Efficiency in Hiring, Nov 5 p 1087; Nov 19 p 1189  
 Engineering Society's Service Scored, Dec 24 p 1452  
 European Welfare Systems and the War, Oct 1 p 781  
 Europe's War and Business, July 30 p 272  
 Factors in the Business Situation, Nov 12 p 1130  
 Fair Rates for Railroad Service, Sept 3 p 566  
 Federal Trade Commission, Dec 10 p 1351  
 Ferromanganese Situation, Aug 13 p 384; Aug 27 p 494  
 Finished Laws on Business, July 2 p 36  
 Fogging a Clayton Bill Issue, July 16 p 156  
 Future Machinery Market, July 9 p 100  
 Gasoline Should Not Be Taxed, Oct 1 p 782  
 Golden Rule in Purchasing, July 16 p 156
- Heavy Decline in Our Foreign Trade, Sept 24 p 726  
 Higher Prices for Steel, Aug 13 p 384  
 Hypothetical Opinion, Nov 12 p 1130  
 Important Result of the War, Aug 27 p 493  
 Improvement in Housing Workmen, Sept 17 p 671  
 Incubus on Business, Oct 22 p 954  
 International Competition in Steel, Dec 31 p 1499  
 Iron and Steel Market Symptoms, Dec 10 p 1350  
 Iron Ore Output and Consumption, Sept 3 p 567  
 Lake Ore Movement, July 30 p 272  
 Lean Year's Distribution of Steel, Dec 24 p 1451  
 Legislation Versus Efficiency, Dec 17 p 1400  
 Lost Panic of 1913, Oct 1 p 780  
 Lower Rail Rates to the Pacific Coast, Aug 27 p 493  
 Machine Building on Work Time Contracts, Aug 6 p 332  
 Machine Tool Prices, July 30 p 273  
 "Made in the United States," Oct 15 p 900  
 Manufacturers' Co-operation on Exports, Sept 3 p 567  
 Measures of Trade Activity, July 30 p 273  
 Meeting on Testing Materials, July 9 p 98  
 Mid-Year Pig-Iron Statistics, Aug 20 p 437  
 Molding-Machine Sales Methods, July 9 p 99  
 Navigation Law Amended, Aug 20 p 436  
 Nearing the Turning Point, Nov 5 p 1086  
 New Banking System Launched, Aug 13 p 385  
 New Construction by Small Interests, July 9 p 98  
 New Outlet for Government Energy, Sept 3 p 566  
 No More Car Performance Statistics, Nov 26 p 1243  
 October Export Figures Interesting, Dec 17 p 1400  
 Old Low Points in Iron Production, Oct 8 p 840  
 Our Crippled Sea Service, Aug 6 p 330  
 Our Foreign Trade Situation, Oct 29 p 1008  
 Pig-Iron and Scrap Prices, Oct 1 p 782  
 Pig-Iron Barometer, Quick Reading of the, Aug 20 p 436  
 Pig-Iron Requirements for Steel Making, July 23 p 213  
 Politico-Mental Phases of Business, July 23 p 212  
 Possible Revision of the Tariff, Nov 26 p 1243  
 President's Bereavement, Aug 13 p 386  
 Proposed Freight Tax, Sept 17 p 670  
 Protection as a British War Measure, Sept 10 p 624  
 Quicker Commission Action Needed, Oct 8 p 840  
 Railroad Crisis, Sept 24 p 724  
 Railroad Position, July 2 p 36  
 Recasting the Iron and Steel Industry, July 2 p 37  
 Reciprocal Trade with South America, Oct 15 p 899  
 Replacing Foreign Alloy Steels, Nov 26 p 1242  
 Rise and Fall of Metals, Oct 8 p 841  
 Rolled Iron and Steel in 1913, Aug 20 p 436  
 "Safety First" May Defeat Its Purpose, Oct 22 p 956  
 Sanity on South American Trade, Sept 24 p 724  
 Schemes of Export Sharppers, Dec 24 p 1451



- Sheet and Tin-Plate Production, July 23 p 213
- Some Aspects of "Trust" Legislation, Aug 6 p 331
- Some Comfort for Industrial Railroads, Nov 12 p 1131
- Spelter Situation, Aug 27 p 492
- Steadying Effect of Carrying Stocks, Dec 31 p 1498
- Steel Consumption and "Financing," Sept 17 p 671
- Steel Corporation Suit, Oct 29 p 1008
- Steel Export Prospects, Sept 10 p 625
- Studying Foreign Customers, Oct 1 p 781
- Tax on American Plants in Germany, Oct 8 p 842
- Time for Co-operation, Aug 6 p 330
- Time to Build, Dec 24 p 1450
- Tin-Plate Contracts for 1915, Dec 10 p 1351
- To Standardize "Made in U. S. A.," Dec 3 p 1298
- True Conditions of Business, Oct 15 p 900
- Use for Management Literature, July 16 p 158
- Wanted—A Model Compensation Bill, Nov 26 p 1242
- War and Our Patent Law, Aug 13 p 385
- War Exports, Nov 19 p 1188
- Way of Prosperity, Sept 10 p 624
- Why Navy Yards Can Bid Low, Nov 19 p 1190
- World's Leadership, Nov 19 p 1188
- Education, Industrial:  
(See National Society for Promotion of Industrial Education)
- Edwards Mfg. Company:  
All-Steel Hand Truck,\* Dec 24 p 1445
- Efficiency:  
Croton System,\* July 2 p 57  
Exposition in 1915, Dec 17 p 1419  
Measuring in Industrial Work, Dec 3 p 1320
- Efficiency Society, Inc.:  
Convention Programme, July 2 p 23  
Proceedings of Convention, Sept 24 p 721
- Eldridge, H. R.:  
American Banking Facilities in South America, Oct 29 p 1026
- Electric Auto Light Company:  
Manufacturing Electric Starting Outfits,\* Oct 15 p 875
- Electric Controller & Mfg. Company:  
Reversing Motor Drive for Boring Mills,\* Dec 10 p 1345
- Electric Drive:  
In Ebbw Steel, Iron & Coal Company's Sheet Mill, Oct 29 p 1025  
In the Navy, Dec 31 p 1517
- Electrical Apparatus Parts, Castings as, Dec 31 p 1496
- Electrical Engineers:  
(See Association of Iron and Steel Electrical Engineers)
- Electricity in Steel Plants, Nov 5 p 1078
- Electrolysis, Iron Manufacture by,\* Dec 17 p 1390
- Elliott, Stuart R.:  
Steel Ore Stocking Trestle,\* Oct 22 p 940
- Emery, James A.:  
Clayton Act and Labor Combinations, Nov 26 p 1260
- Emmons, J. V.:  
Surface Decarbonization of Tool Steel,\* Dec 3 p 1288
- Empire Rolling Mill Company:  
New Sheet Mill, Oct 8 p 843
- Empire Steel & Iron Company:  
Crane Furnace Shut-Down Over Coke Rates, Dec 24 p 1475  
Pig Iron, 75 Years of Anthracite, July 2 p 60
- Enameled Ware, Manufacture of Gray,\* July 2 p 10
- Engineering Congress, International, Nov 12 p 1133; Dec 17 p 1403
- Engineering Evening School, University of Pittsburgh, Oct 8 p 831
- Engines:  
Blooming-Mill, Test of Brier Hill,\* Dec 3 p 1278  
Census Schedule for, Nov 12 p 1155  
Gasteam for Ford Motor Company, Aug 27 p 480  
Harris Valveless, Using Diesel Principle, Sept 3 p 546  
Nordberg 1250-hp. Diesel,\* Sept 10 p 601  
Rules for Engine Room, Nov 12 p 1128
- Engines, Gas:  
Mesta Large Blowing, Oct 15 p 897  
Propelling Coal Barges,\* Aug 6 p 307  
Steam as a By-Product,\* Oct 1 p 764
- Engines, Oil:  
Largest American Diesel,\* Aug 13 p 369
- Epicassit, a Protective Metal Coating, Oct 8 p 837
- Erichsen, A. M.:  
Testing Sheet Steel,\* July 23 p 195
- Esterline Company:  
Production Recording Device,\* Sept 17 p 661
- European War and Iron and Machinery Trades, Aug 6 p 354
- Exhibits:  
Foundry and Machine,\* Sept 3 p 556
- Exports:  
Cincinnati and Columbus Move for Trade, Aug 27 p 512  
Cleveland Manufacturers and, Sept 3 p 588  
Combinations to Increase, Dec 3 p 1290  
Co-operation in Extending Trade in Steel, Oct 8 p 860  
Critic of American Policy in Practice, Oct 1 p 783  
Destination of Iron and Steel, July 16 p 157  
Editorial on October Figures, Dec 17 p 1400  
Increase in Merchandise, Oct 1 p 779  
Iron and Steel and Machinery to Brazil, Aug 27 p 512  
Iron and Steel and Machinery to South America, 1913, Aug 20 p 460  
Legal Aspects During War, Aug 13 p 402  
Machine-Tool Trade Survey,\* July 23 p 189  
Manufacturers Active for, Sept 10 p 644  
Manufacturers' Co-operation on, Sept 3 p 567  
National City Bank to Aid Trade, July 9 p 88  
Notes, Oct 15, p 919  
Pittsburgh Movement, Oct 15 p 918  
Schemes of Sharpers, Dec 24 p 1451  
Sewing Machine Trade, Oct 15 p 918  
Steel Prospects, Sept 10 p 625  
Trade Notes, Oct 1 p 799  
With Drawback, Dec 10 p 1372  
To Raise Embargo on, Aug 13 p 404  
Work of Bureau of Foreign and Domestic Commerce, Dec 10 p 1346
- Exports and Imports of Iron and Steel, May, July 23 p 215; June, Aug 27 p 491; July, Oct 8 p 862; August, Oct 15 p 901; September, Nov 26 p 1245; October, Dec 17 p 1420
- Export Association:  
(See American Manufacturers' Export Association)
- Expositions:  
Coming Industrial Safety at Columbus, Ohio, Dec 3 p 1291  
In New York—Efficiency, Inventions, "Made in the U. S. A." and Safety, Dec 17 p 1419
- Mine at the Panama-Pacific, July 9 p 89
- Newark Industrial, Aug 20 p 419
- Panama-Pacific Early Exhibitors, Nov 19 p 1182
- Panama-Pacific Pipe Welding,\* Nov 5 p 1083
- Panama-Pacific to Open as Scheduled, Sept 10 p 629
- Paterson Industrial, Oct 8 p 857
- Steel Corporation's Exhibit at Panama-Pacific, Dec 17 p 1425
- Tower of Jewels at Panama-Pacific, July 23 p 205
- Eyelet Machine, Waterbury Farrel Automatic,\* Sept 3 p 549
- F
- Fabrication-in-Transit Refused, Nov 26 p 1244
- Factory Layouts, Illustrated:  
Eastern Car Company, Ltd., Sept 24 p 703  
J. H. Williams & Co., Oct 8 p 817  
Russell Mfg. Company, Aug 6 p 303  
Standard Machinery Company, Sept 17 p 655
- Factory Work, Mistakes in,\* Aug 13 p 376
- Fairbanks, Morse & Co.:  
Self-Propelled Coal Barges,\* Aug 6 p 307
- Fairbanks, Robert N.:  
This Country's Export Opportunities, Sept 17 p 694  
Why Give Away "Good Will"? Oct 29 p 1031
- Falls Hollow Staybolt Company:  
New Rolling Mill, Sept 24 p 717
- Fans, Noise from Ventilating, July 23 p 210
- Farm Tractors in Heavier Demand, Nov 5 p 1082
- Farrell, James A.:  
Improvement in January, Dec 17 p 1418
- Fatigue and Production, Oct 1 p 776
- Fatigue of Metals, Calorimetric Determination of, Nov 5 p 1066
- Federal Trade Commission, Dec 10 p 1351
- Ferguson, James C. H.:  
Rolled Steel Roll Shells,\* Nov 19 p 1176
- Ferracute Machine Company:  
Dial Feed Attachment for Presses,\* Oct 29 p 987
- Ferromanganese:  
And Manganese Ore, Sept 24 p 721  
At Dunbar, Making, Nov 5 p 1059  
Embargo Continues, Dec 31 p 1501  
Lifting the Embargo on, Nov 19 p 1208  
Melted, Aug 20 p 463  
Noble Electric Steel Company to Make, Sept 3 p 568  
Patent for Melting Process, Sept 24 p 713  
Situation, Aug 13 p 384; Aug 27 p 494
- Fichtner, R.:  
Cupola Tapping Device,\* Aug 13 p 374
- "Fireproof" Buildings, Rapid Destruction of Edison,\* Dec 17 p 1381
- First Aid Jar for Industrial Plants,\* Dec 24 p 1444
- Fissures in Axles, Internal Transverse,\* July 16 p 144
- Floors in Fireproof Buildings, Dec 31 p 1527
- Fluorspar, Production, 1913, July 30 p 253
- Forbes, W. D.:  
Advertising Suggestions, Aug 13 p 386  
Business Crisis—How Met, Sept 10 p 610
- Ford Motor Company:  
Gasteam Engine, Aug 27 p 480
- Fore River Shipbuilding Company:  
Submarine Contracts Reported Canceled, Dec 10 p 1368

- Foreign Customers, Studying, Oct 1 p 781
- Foreign Holdings of American Securities, Oct 22 p 957
- Foreign Inquiries and Increased Operations, Aug 27 p 511
- Foreign Trade:
- Club Formed, July 9 p 101
  - Council Organized, July 16 p 147
  - Council Plans for Convention, Sept 24 p 743
  - Decline in Our, Sept 24 p 726
  - Developments, Oct 1 p 798
  - National Convention in January, Oct 8 p 861
  - Notes, Oct 8 p 860
  - Our Situation, Oct 29 p 1008
  - Recent Export News, Oct 29 p 1035
  - Second National Convention, St. Louis, January, Dec 24 p 1475
  - To Extend, Combinations, Dec 3 p 1290
- Forge, Hardening Steel in a, Sept 3 p 553
- Forgers Association:
- (See American Drop Forgers Association)
- Foster, Herbert:
- Periodicity of Panics, Oct 8 p 842
- Founders' Association, National:
- Convention Programme, Oct 29 p 1031
  - Proceedings of Convention, Nov 19 p 1191; Nov 26 pp 1238 and 1260
- Foundries, Decrease in, Oct 8 p 863
- Foundry:
- Agreement on Prices for Molding-Machine Work, July 16 p 159
  - Aluminum Castings Company's Sand Mixing Plant,\* Dec 3 p 1273
  - Becker Molding Frame, July 30 p 252\*; Aug 6 p 315
  - Causes of Coke Troubles, Dec 10 p 1348
  - Cincinnati Foundry Company's,\* Sept 3 p 542
  - Coke of the Cupola Dump, Nov 5 p 1073
  - Coloring Patterns for Castings, Nov 19 p 1179; Dec 3 p 1300
  - Cupola Tapping Device,\* Aug 13 p 374
  - Device to Prevent Cupola Explosions,\* July 30 p 250
  - Die-Casting Practice, Sept 24 p 722
  - Drop-Pouring for Castings,\* Sept 10 p 612
  - Dry and Green Sand Castings, Sept 3 p 534
  - Economics of the Two-Story, Sept 10 p 604
  - Electric Furnace in the, Oct 1 p 777
  - Eliminating Waste Motion in Molding,\* Sept 17 p 662
  - General Electric Air Compressor for Cupolas,\* Sept 3 p 541
  - Green Sand Cores, Oct 1 p 774
  - Handling Patterns with a Jib Crane,\* Nov 12 p 1125
  - Hill Flask Bar,\* Dec 31 p 1529
  - International Electric Molding Machine Vibrator,\* July 16 p 146
  - Kane & Roach Tumbling Barrel,\* Dec 31 p 1525
  - Link-Belt Malleable, at Indianapolis,\* Aug 6 p 308
  - Material for High Grade Castings, Nov 12 p 1151
  - Molding-Machine Sales Methods, July 9 p 99
  - Molding Sand Problem Important, Sept 3 p 544
  - New Design of Cupola,\* Oct 15 p 890
  - Nozzle Brick for Steel Ladles,\* Sept 24 p 708
  - Organizing and Managing a, Nov 5 p 1074; Nov 12 p 1146
  - Preventing Piping in Steel Castings,\* Oct 8 p 834
  - Prime Steel Company,\* Oct 22 p 929
  - Quantity Production of Golden's Foundry & Machine Company,\* Sept 3 p 531
  - Safety Devices, Nov 26 pp 1241 and 1260
  - Scientific Management of Aluminum Castings Company,\* Sept 3 p 523
  - Scott-Johnson All-Metal Box for Making Cores by Hand, Sept 3 p 537
  - Selecting Refractories for, Oct 22 p 942
  - Selling Price of Castings, Oct 22 p 933
  - Skill in the Trade, Dec 10 p 1373
  - To Make Molding Machines Effective, July 2 p 3
  - Training Leaders,\* Oct 1 p 771
  - Valley Mold & Iron Company to Build Ingot Mold at Lebanon, July 23 p 214
- Foundry & Machine Exhibition Company:
- Announcement of 1915 Meeting, Nov 19 p 1209
  - Chicago Exhibits,\* Sept 3 p 558
  - Exhibition, Sept 10 p 643
- Foundry Foremen, Associated: Convention Programme, July 2 p 39; Sept 3 p 556\*
- Proceedings of Convention,\* Sept 10 p 642; Sept 17 pp 667 and 687
- Foundrymen's Associations:
- American:
    - Announcement of 1915 Meeting, Nov 19 p 1209
    - Convention Papers, Aug 13 p 375
    - Convention Programme, July 2 p 39; Sept 3 p 556\*
    - Proceedings of Convention,\* Sept 10 p 642; Sept 17 pp 667 and 687
  - Newark, Oct 15 p 917; Dec 10 p 1348
  - Philadelphia, Sept 10 p 627; Oct 15 p 920; Nov 12 p 1153; Dec 10 p 1367
  - Pittsburgh, Sept 17 p 673; Oct 8 p 864; Nov 5 p 1109; Dec 10 p 1367
- France:
- American Interest in Bridge Reconstruction Planned, Dec 10 p 1368
  - Conference on Trade with, Oct 22 p 974
  - Patent Fuel Process, July 23 p 199
- Franklin, H. H., Mfg. Company:
- Manufacturing Planning Department,\* Nov 5 p 1068
  - Results of Applied Scientific Management,\* July 2 p 14; July 9 p 90; July 16 p 134
- Franklin Institute, Metallurgical Section, Sept 10 p 627
- Franklin Steel Works:
- New Steel Plant,\* Sept. 10 p 606
- Freight Rates:
- Coast Iron and Steel Rates, July 30 p 271
  - Comfort for Industrial Railroads, Nov 12 p 1131
  - Commerce Commission Reverses Itself on Industrial Railroads, Nov 12 p 1156
  - Eastern Decision Gives Promise, Aug 27 p 493
  - Editorial on Advance in, Dec 24 p 1450
  - Effect of Southern Rate Decision at Chicago, July 9 p 103
  - Fabrication - in - Transit Refused, No. 26 p 1244
  - Fair, for Railroad Service, Sept 3 p 566
  - Five Per Cent. Decision, Aug 6 p 351
  - For Railroad Advance, Dec 3 p 1296
  - Interstate Commerce Commission's Disastrous Delay, Oct 15 p 900
  - Lake Superior Ore Hearing, Nov 26 p 1263
- Lower Tariffs on Virginia Pig Iron, Sept 3 p 58
- Lower to the Pacific Coast, Aug 27 pp 493 and 495
- New Southern Iron, Oct 8 p 866
- New Virginia Pig-Iron Rates Confused, Oct 22 p 957
- Ore Rates to Loading Docks, Nov 5 p 1081
- Railroads Attempting to Advance Commodity Rates, Oct 15 p 886
- Railroad Rate Rehearing, Oct 22 p 971; Oct 29 p 1007; Nov 5 p 1089
- Railroads Secure Five Per Cent. Advance, Dec 24 p 1447
- Reduction in Virginia Pig-Iron Rates to New England and Middle Atlantic States, July 16 p 178
- Southern Pig Iron, Dec 31 p 1516
- Southern Pig-Iron Rate Case Revived, Nov 12 p 1152
- Southern Pig Iron Reduced, July 9 p 100
- Southern Pig-Iron Reduction Not Made by All Roads, Oct 1 p 808
- Supplymen's View of Rate Decision, Aug 13 p 369
- Friction, Universal Joint,\* Dec 24 p 1438
- Fuel Engineering Company:
- Cost of Power, Nov 5 p 1085
- Furnaces:
- Brass Furnace Practice, Aug 20 p 438
  - Heat-Treating Plant of Burroughs Adding Machine Company,\* Nov 12 p 1115
  - Powdered Coal in Industrial,\* July 9 p 80
  - Selecting Refractories for, Oct 22 p 942
- Furnaces, Annealing:
- For Tires,\* Dec 17 p 1397
  - Salan & Birkholz Improved Continuous,\* July 9 p 86
- Furnaces, Blast:
- Birmingham Practice Development, Oct 29 p 994
  - Blowing Out Ohio, July 2 p 56
  - Briquetting Ore at Northwestern Iron Company's, Nov 26 p 1258
  - Carbon Hearths for, Sept 17 p 666
  - Chino-Japanese, on American Lines, Dec 3 p 1300
  - Crane Shut-Down Over Coke Freights, Dec 24 p 1475
  - Dry Cleaning of Gas, July 30 p 261
  - Explosives to Remove Scaffolds,\* Dec 24 p 1446
  - Measurements of Modern, Oct 8 p 828
  - Modern American Practice,\* July 2 p 30; July 9 p 92; July 16 pp 153 and 178; July 23 p 202
  - Monthly Statement,\* July 9 p 102; Aug 6 p 334; Sept 10 p 628; Oct 8 p 844; Nov 5 p 1090; Dec 10 p 1354
  - New Corrigan, McKinney & Co., at Cleveland, July 2 p 16; July 30 p 293
  - New Pennsylvania Steel Company at Steelton, Pa., July 2 p 22
  - Notes, July 9 p 103; Aug 6 p 335; Sept 10 p 629; Oct 8 p 845; Nov 5 p 1091
  - Operation of Spiegeleisen,\* Dec 17 p 1398
  - Patent for Air-Cooled Stack, July 30 p 271
  - Pfoser-Strack-Stumm System for Stoves, Dec 3 p 1318
  - Projects in Asia, Oct 1 p 776
  - Record Life for a Lining, July 2 p 9
  - Safety Regulations, Nov 26 p 1226
  - Slag as Aggregate in Concrete, July 23 p 201
  - Telpher Charging,\* Dec 17 p 1388
  - Titaniferous Ores in, Oct 22 p 936; Dec 24 p 1470

- Turbo-Blowers for,\* July 23 p 200;  
Oct 29 p 998  
Use of Briquettes, Dec 17 p 1394  
Furnaces, Electric:  
Brass Melting,\* Dec 31 p 1492  
Helfenstein Large,\* Aug. 27 p 478  
In the Foundry, Oct 1 p 777  
Power Consumption, Dec 17 p 1402  
Steel Direct from Ore Fines,\* Oct  
15 p 877  
Furnaces, Heating:  
Powdered Coal for,\* Nov 5 p 1045  
Furnaces, Open-Hearth:  
Design of Ports for,\* Sept 3 p 554  
Pennsylvania Steel Company,\* Sept  
10 p 614  
Talbot and Other, Nov 12 p 1118  
Furst, J. K.:  
Duplex Process for Making Steel,\*  
Oct 15 p 882
- G
- Galvanizing:  
History of the Industry, July 9 p 129  
Theory and Practice of Sherardiz-  
ing,\* July 23 p 191; July 30  
p 245; Aug 6 p 316; Aug 13  
p 378; Aug 20 p 424  
Gandy Belting Company:  
Belt a Seventh of a Mile Long, Nov  
26 p 1233  
Ganister-Lined Converters, Dec 3 p  
1292  
Gantt, H. L.:  
Measuring Efficiency in Industrial  
Work, Dec 3 p 1320  
Gardner Machine Company:  
Motor-Driven Patternmaker's Ma-  
chine, Sept 3 p 543  
Garvin Machine Company:  
Automatic Tapping Machines,\* Dec  
24 p 1442  
Copper Coil Forming Machine,\*  
July 23 p 193  
Gary, Elbert H.:  
On Business Conditions, July 2 p 60  
Trade Supremacy Large Factor in  
the War, Nov 5 p 1050  
Gary, Ind.:  
Illinois Steel Company's New 36-In  
Slabbing Mill,\* Oct 8 p 824  
Gas:  
By-Products from Producer, July 2  
p 9  
Dry Cleaning of Furnace, July 30  
p 261  
Gas Producers:  
Lynn System with By-Products Re-  
covery, Nov. 12 p 1145  
Used in Propelling Coal Barges,\*  
Aug 6 p 307  
Gasoline Should Not Be Taxed, Oct 1  
p 782  
Gasteam Engine for Ford Motor Com-  
pany, Aug 27 p 480  
Gauge, American Wire, in Customs  
Service, Aug 27 p 477  
Gaynor, Frank A.:  
New York Compensation Act, Mar-  
ried Workmen, Aug 20 p 430  
Gears:  
Gleason Small Bevel Generating  
Machine,\* July 30 p 247  
Gould & Eberhardt Rack Cutting  
Machines,\* Dec 31 p 1528  
Gould & Eberhardt Roughing,\* Sept  
3 p 548  
Hot Rolled Helical and Bevel,\* Aug  
20 p 425  
Tabor Testing Machine,\* July 2  
p 18  
General Electric Company:  
Air Compressor for Blowing  
Cupolas,\* Sept 3 p 541  
Automatic Solenoid Brake for  
Cranes,\* Nov 19 p 1177  
Calorizing Process for Coating  
Metals,\* Dec 17 p 1386  
First Aid Jar for Industrial Plants,\*  
Dec 24 p 1444  
General Stamping Company:  
Manufacture of Gray Enameled  
Ware,\* July 2 p 10
- Germany:  
Advancement as an Industrial Pow-  
er, Aug 6 p 320  
Briquettes in Blast-Furnace Prac-  
tice, Dec 17 p 1394  
British Chances of Getting Wire  
and Electrical Trade, Sept 10  
p 646  
By-Products from Producer Gas,  
July 2 p 9  
Conditions in the Steel Trade, Oct  
8 p 845  
Decline in Pig-Iron Output, Oct 29  
p 1035  
Decrease in Pig-Iron Output for Six  
Months, July 23 p 211  
Device to Prevent Cupola Explo-  
sions,\* July 30 p 250  
English Analysis of Machinery Ex-  
ports, Sept 24 p 745  
Export Machinery Houses, Sept 10  
p 645  
Exports for Five Months, July 9  
p 117  
Exports for June and the Half  
Year, Aug 6 p 335  
Iron and Metal Trades, Dec 17 p  
1416, Dec 24 p 1449, Dec 31 p  
1513  
Iron and Metal Trades and the  
War, Nov 26 p 1259  
Iron-Ore Production, 1913, Dec 24  
p 1445  
Iron Trade in Recent Weeks, Nov  
12 p 1129  
Machine-Tool Export Firms Not  
Inactive, Oct 1 p 798  
Machinery Trade After the War,  
Sept 17 p 693  
Measurements of Modern Blast  
Furnaces, Oct 8 p 828  
Metal Prices Soaring, Dec 10 p  
1355  
New Cupola Tapping Device,\* Aug  
13 p 374  
New Plate Mill at Plant of Bremer-  
hütte A. G.,\* Nov 19 p 1174  
New Wire Syndicate, Oct 8 p 843  
Operation of Spiegeleisen Blast  
Furnaces,\* Dec 17 p 1398  
Pig-Iron and Ore Situation, Dec 3  
p 1296  
Removing Blast Furnace Scaffolds,\*  
Dec 24 p 1446  
Review of Steel Trade, Oct 29 p  
1035  
Roll Design for Several Sections,\*  
Dec 24 p 1467  
Salau & Birkholz Improved Con-  
tinuous Annealing Furnace,\*  
July 9 p 86  
Steel Industry and the War, Sept  
17 p 693  
Steel Production, Dec 17 p 1419  
Steel Trade and War, Oct 15 p 889  
Steel Works Union, Fiscal Year,  
Dec 31 p 1512  
Steel Works Union on Trade Con-  
ditions, Nov 26 p 1225, Dec 31  
p 1495  
Tax on American Plants in, Oct 8  
p 842  
Testing Sheet Steel,\* July 23 p 195  
Trade Position Due to Technical  
Men, Nov 5 p 1104  
War and the Iron Trade, Oct 22 p  
968  
War Effect on Steel Works, Sept 24  
p 745  
Working Hours in Steel Plants,  
July 30 p 251  
Giddings & Lewis Mfg. Company:  
Conradson Multiple-Spindle Lathe,\*  
July 9 p 82  
Gilbreth, Frank B.:  
Production and Fatigue, Oct 1 p 776  
Gisholt Machine Company:  
Selling Changes, Oct 1 p 806  
Gleason Works:  
Small Bevel Gear Generating Ma-  
chine,\* July 30 p 247  
Glenn, Thomas K.:  
Southern Iron and Steel Industry,  
Oct 29 p 992
- Globe Iron Company:  
Rules for the Engine Room, Nov  
12 p 1128  
Goggles:  
Color in Safety Lenses,\* July 23 p  
194  
F. W. King Safety for Hot Condi-  
tions,\* July 16 p 149  
Golden's Foundry & Machine Com-  
pany:  
Quantity Production Molding,\* Sept  
3 p 531  
Goldschmidt-Thermit Company:  
New Way to Make High Mangan-  
ese Steel Castings, Dec 31 p  
1485  
Goltra Process, Concentration by,  
Nov 12 p 1148  
"Good Will," Why Give Away? Oct  
29 p 1031  
Gould & Eberhardt:  
Gear Roughing Machine,\* Sept 3 p  
548  
Rack Cutting Machine,\* Dec 31 p  
1528  
Shaping Machine with Pulley  
Guard,\* Oct 1 p 765  
Gray and Campion:  
Oxy-Acetylene Welds, July 30 p  
250  
Great Britain:  
Additional British Contraband of  
War, Oct 8 p 832; Nov 19 p  
1207  
American Business Men in British  
Eyes, Nov 5 p 1089  
British and American Machinery  
Trade, Nov 5 p 1079  
Building Trades Buy in the United  
States, Sept 17 p 693  
Carbon Hearths for Blast Furnaces,  
Sept 17 p 666  
Chances of Getting German Wire  
and Electrical Trade, Sept 10  
p 646  
Dunford & Elliott Hollow Metal  
Rods, July 16 p 135  
Electric Drive in Mill of Ebbw  
Steel, Iron & Coal Company,  
Ltd., Oct 29 p 1025  
English Analysis of German Ma-  
chinery Exports, Sept 24 p 745  
Enlistments from British Industrial  
Plants, Oct 8 p 861  
Exports:  
Continue to Decrease, Aug 27  
p 491  
Falling Off in War Months, Dec 3  
p 1317  
For 11 Months, Dec 24 p 1453  
For September, Oct 22 p 955  
Still Decreasing, July 23 p 207  
Ferromanganese Embargo Con-  
tinues, Dec 31 p 1501  
Foreign Trade in August, Sept 24  
p 725  
Iron Trade Conditions, Oct 29 p  
1009  
Paris Meeting of Iron and Steel In-  
stitute Abandoned, Aug 27 p  
476  
Pig-Iron Production for First Half,  
1914, Aug 27 p 489  
Protection as a War Measure, Sept  
10 p 624  
Record Life for a Blast Furnace  
Lining, July 2 p 9  
Shipbuilding, July 30 p 269  
Steel Companies Reduce Dividends,  
Oct 8 p 843  
Steel Production, 1913, July 2 p 60  
Steel Trade and the War, Nov 5  
p 1091  
Great Northern Ore Properties:  
Hill Iron Ores in 1915, Dec 10  
p 1353  
New Hill Iron Mine Leases, Oct 15  
p 920  
Green, James A.:  
Why Not Help the Pig-Iron Men?  
Sept 17 p 672  
Greenawalt Iron-Ore Sintering Plants,  
Oct 1 p 775; Oct 8 p 842



- Gregson, John:  
Ganister-Lined Converters, Dec 3 p 1292
- Grieves, W. A.:  
Industrial Conditions at Jeffery Plant,\* Nov 5 p 1064
- Grinding Machines:  
Besly Motor-Driven Disk,\* July 23 p 207  
Besly Sanding and,\* Sept 3 p 552  
Challenge Protected Wheel,\* Oct 8 p 832  
Diamond Automatic Surface,\* Sept 3 p 547  
Gardner Patternmakers' Roll Sanding and,\* Sept 3 p 543  
Landis Attachment for Die Chasers,\* Dec 31 p 1525  
Modern Tool Company,\* Dec 31 p 1526
- Neil & Smith Portable Lathe Center,\* Sept 3 p 546  
Safety Devices, Dec 17 p 1392  
Safety Goggles for, Dec 24 p 1469  
Safety in, Nov 26 p 1235  
Springfield Carwheel,\* Dec 31 p 1485  
Standard Engineering Roll, Two-Head,\* July 23 p 198  
Standard Internal,\* Dec 31 p 1529  
Walker Disk and Surface,\* Dec 31 p 1489  
Wilmarth & Mormon Universal Tool,\* Sept 3 p 536
- Gross, Charles:  
Genuine Wrought-Iron Pipe, July 23 p 196
- Grum-Grzimailo, Prof. W. E.:  
Annealing Oven for Tires,\* Dec 17 p 1397
- Guillet, L.:  
Iron Manufacture by Electrolysis,\* Dec 17 p 1390
- Guillet and Bernard:  
Methods for Local Case Hardening, Dec 31 p 1529
- Gurney Electric Elevator Company:  
Lighting,\* Nov 19 p 1180

## H

- Hack Saws, Revised Drawback on Steel for, July 30 p 275
- Hackett, J. D.:  
Selecting Common Labor by Standard Physical Test, Nov 5 p 1085
- Hagar, W. G., Iron Company:  
Purchased by Joseph T. Ryerson & Son, July 23 p 329; Aug 6 p 329
- Hall, John H.:  
Preventing Piping in Steel Castings,\* Oct 8 p 834
- Hall Printing Press Company:  
Handling Patterns with Jib Crane,\* Nov 12 p 1125
- Hammers:  
Hart Safety Device for Presses and,\* Oct 15 p 881  
H. Edsall Barr's Pneumatic,\* Nov 19 p 1175  
Henderson Steam or Air Lift Drop,\* July 2 p 17  
Ingersoll-Rand Pneumatic Riveting Safety Features, July 16 p 132
- Hanna, M. A. & Co.:  
Hill Iron Ores in 1915, Dec 10 p 1353
- Hanyang Iron & Steel Works:  
Blast Furnaces May Ship to the United States, Nov 19 p 1191
- Hanyehping Iron & Coal Company:  
Chino-Japanese Blast Furnaces on American Lines, Dec 3 p 1300
- Harbison-Walker Refractories Company:  
Annual Report, Dec 10 p 1352  
Chrome and Magnesia Brick by Weight, Dec 10 p 1367  
Selecting Foundry Refractories, Oct 22 p 942
- Hardening Tool Steel, Factories in,\* Dec 10 p 1340
- Harder, E. C.:  
Iron Industry in Brazil,\* Oct 15 p 888
- Hardware, Opening for American Builders', Sept 10 p 645
- Harris Patents Company:  
Valveless Engine Utilizing Diesel Principle, Sept 3 p 546
- Hart Mfg. Company:  
Safety Device for Hammers and Presses,\* Oct 15 p 881
- Hartness, James:  
Human Element, Dec 3 p 1297
- Harvey, Col. George:  
For Railroad Rate Advance, Dec 3 p 1296
- Hazard, F. R.:  
Budget Making, Oct 1 p 804
- Heald Machine Company:  
Magnetic Chuck,\* July 2 p 7  
Heat Contained in Slag,\* Oct 22 p 944
- Heating and Plumbing Trades Lists, Dec 17 p 1395
- Heat-Treating Plant:  
Anderson Forge & Machine Company's,\* Dec 3 p 1284  
Burroughs Adding Machine Company,\* Nov 12 p 1115
- Heater for Tires, Monarch Portable Sectional,\* Nov 26 p 1236
- Helfenstein Electric Furnace,\* Aug 27 p 478
- Heisler, C. L.:  
Vibratory Testing Machine,\* July 9 p 84
- Henderer's, L., Sons.:  
Hand Hydraulic Pump,\* Dec 31 p 1491
- Henderson Machine Company:  
Steam or Air Lift Drop Hammer,\* July 2 p 17
- Hendey Machine Company:  
Machine for Milling Bridge Reamers,\* Nov 5 p 1082  
Rapid Production Milling Machine,\* Sept 3 p 551
- Henry & Wright Mfg. Company:  
Direct Drive Tapping Fixture,\* Oct 1 p 757
- Hering and Clamer:  
Brass Melting in Electric Furnace,\* Dec 31 p 1492
- Herrington, C. F.:  
Powdered Coal for Heating Furnaces,\* Nov 5 p 1045
- Hess & Son:  
Epicassit, a Protective Metal Coating, Oct 8 p 837
- Hess-Bright Mfg. Company:  
Plant for Ball Bearings, Aug 27 p 512
- Hibbard, Henry D.:  
Elimination of Seams in Steel Rails, Dec 10 p 1337
- Hill Clutch Company:  
Foundry Flask Bar,\* Dec 31 p 1529
- Hill Iron Mines:  
New Leases of, Oct 15 p 920  
Plans for 1915, Dec 10 p 1353
- Hillman, M. P. Gentry:  
Birmingham Furnace Practice, Oct 29 p 994
- Hiring Men:  
And Discharging, Waste in, Oct 29 p 1032  
Reducing Waste in, Nov 19 p 1189
- Hodgkinson, Francis:  
Building Large Steam Turbines,\* July 2 p 28
- Hoerr, Alexander L.:  
Turbo-Blower for Blast Furnace,\* Oct 29 p 1001
- Hofmann, J.:  
Talbot and Other Furnaces, Nov 12 p 1118
- Hoist, Ingersoll-Rand Portable Light,\* Sept 3 p 548
- Holzweiler, C.:  
Roll Design for Several Sections,\* Dec 24 p 1467
- Hook Block, Patterson Record Size,\* July 9 p 78
- Hooper, G. K.:  
Economics of the Two-Story Foundry, Sept 10 p 604
- Hooven, Owens, Rentschler Company:  
Gasteam Engine, Aug 27 p 480
- Hoover Steel Ball Company:  
Greater Output, Sept 24 p 717
- Hopkins, Ernest M.:  
Function of the Supervisor of Personnel, Dec 10 p 1371
- Horton, E., & Son Company:  
Combination Geared Scroll Chuck,\* Dec 3 p 1279
- Howard, James E.:  
Elimination of Seams in Steel Rails, Dec 10 p 1338
- Howe, Campbell and Hall:  
New Manganese Steel Patent, Nov 26 p 1230
- Hubbard & Co.:  
Critic of American Export Policy, Oct 1 p 783
- Hubbard, C. R.:  
Business Career, Aug 6 p 329
- Huessner, K.:  
Dry Cleaning Furnace Gas, July 30 p 261
- Hulst, John:  
Modern Steel Plant Repair Department, Nov 5 p 1053
- Human Element, Dec 3 p 1297
- Humbert, Ernest:  
Patent for Melting Ferromanganese, Sept 24 p 713
- Humphrey Pumps for Egyptian Government, July 9 p 91
- Hunnings, S. V.:  
Vibratory Testing Machine,\* July 9 p 84
- Hunt, Robert W.:  
Elimination of Seams in Steel Rails,\* Dec 10 p 1334
- Hunter, John A.:  
Patent for Converting Cast Iron Into Steel or Malleable Iron, Dec 24 p 1443
- Hydraulic Press Mfg. Company:  
Broaching and Forcing Press,\* Oct 29 p 1004  
Five-Way Balanced Operating Valve,\* Dec 17 p 1385  
Pilot Operated Press Valve,\* July 16 p 146
- Hydraulic Pressed Steel Company:  
House Organ for Shop Employees,\* Oct 1 p 766
- Hypothetical Opinion, Nov 12 p 1130

## I

- Illinois Iron & Bolt Company:  
Semi-Centennial, Sept 24 p 740
- Illinois Steel Company:  
Gary 36-in. Slabbing Mill,\* Oct 8 p 824
- Illinois Stoker Company:  
Chain Grate Stoker,\* July 16 p 140
- Importers and New Invoice Rules, July 30 p 263
- Imports:  
Mexican, from This Country, Oct 22 p 973  
Philippine Iron and Steel, Oct 8 p 859  
Wisconsin Manufacturers Ask Action for, Sept 3 p 588
- Imports and Exports of Iron and Steel:  
May, July 23 p 215; June, Aug 27 p 491; July, Oct 8 p 862; August, Oct 15 p 901; September, Nov 26 p 1245; October, Dec 17 p 1420
- Independent Steel Company, Sale of, Aug 13 p 373
- India, Manganese Ore from, Dec 31 p 1518
- India House, Foreign Trade Club, July 9 p 101
- Industrial Sidings, Cost of, Aug 27 p 495
- Ingersoll-Rand Company:  
Pneumatic Riveting Hammer Safety Feature, July 16 p 132

- Portable Light Hoist,\* Sept 3 p 548  
 Rivet Buster,\* Sept 17 p 666  
 Small Portable Air Compressor,  
 Dec 17 p 1392  
 Institute:  
 (See American Institute of Metals)  
 (See American Iron and Steel Institute)  
 (See Iron and Steel Institute)  
 Insurance Congress, Social, Sept 10  
 p 601  
 International Acetylene Association:  
 Certain Oxy-Acetylene Apparatus  
 Condemned, Aug 27 p 476  
 International Electric Tool Company:  
 Electric Molding Machine Vibrator,\*  
 July 16 p 146  
 International Engineering Congress,  
 1915:  
 Mechanical Engineering Topics,  
 July 16 p 143  
 Particulars of Meeting, Nov 12 p  
 1133  
 Supplementary Announcement, Dec.  
 17, p 1403  
 International Harvester Company:  
 Decree Amended, Oct 8 p 873  
 Dissolving a "Good" Trust, Aug 20  
 p 437  
 International Machine Tool Company:  
 Turret Lathe for Bar and Chuck  
 Work,\* Sept 3 p 537  
 International Oxygen Company:  
 Apparatus for Testing Purity of  
 Oxygen, Oct 15 p 879  
 Gas Cylinder Stud Valve,\* Oct 22  
 p 950  
 International Specifications, Progress  
 Toward, July 2 p 63  
 International Steam Pump Company:  
 Receivership, Sept 3 p 569  
 Interstate Commerce Commission:  
 Coast Iron and Steel Rates, July 30  
 p 271  
 Comfort for Industrial Railroads,  
 Nov 12 p 1131  
 Confusion in Southern Iron Rates,  
 Oct 8 p 866  
 Disastrous Delay, Oct 15 p 900  
 Eastern Rate Gives Promise, Aug  
 27 p 493  
 Fabrication - in - Transit Refused,  
 Nov 26 p 1244  
 Freight Rate Decision, Five Per  
 Cent., Aug 6 p 351  
 Lake Superior Ore Rate Hearing,  
 Nov 26 p 1263  
 Lower Tariffs on Virginia Pig Iron,  
 Sept 3 p 588  
 New Virginia Pig-Iron Rates Con-  
 fused, Oct 22 p 957  
 Ore Rates to Loading Docks, Nov 5  
 p 1081  
 Quicker Action Needed, Oct 8 p 840  
 Railroad Buying and National Pros-  
 perity,\* Oct 29 p 988  
 Railroad Rate Rehearing, Oct 22  
 p 971; Oct 29 p 1007; Nov 5  
 p 1089  
 Railroads Secure Five Per Cent.  
 Advance, Dec 24 p 1447  
 Reduction in Virginia Pig-Iron  
 Rates to New England and  
 Middle Atlantic States, July 16  
 p 178  
 Reorganization, Dec 17 p 1401  
 Reverses Itself on Industrial Rail-  
 roads, Nov 12 p 1156  
 Southern Pig-Iron Rate Case Re-  
 vived, Nov 12 p 1152  
 Southern Pig-Iron Rates, Dec 31  
 p 1516  
 Southern Pig-Iron Rates Reduced,  
 July 9 p 100  
 Inventions, Exposition, Dec 17 p 1419  
 Ireland, Nails and Barb Wire in, Nov  
 12 p 1123  
 Ireland, W. G.:  
 Causes of Foundry Coke Troubles,  
 Dec 10 p 1348  
 Iron:  
 And Machinery Trades and Euro-  
 pean War, Aug 6 p 354  
 And Steel, Southern Industry, Oct  
 29 p 992  
 August Swedish Ore Exports, Nov  
 5 p 1081  
 Barnum Richardson Historic Mak-  
 ing in Connecticut,\* July 30 p  
 254  
 Boron in Steel and, Nov 19 p 1172  
 Cast, with Unusual Structure,\* Nov  
 12 p 1120  
 Continental Trade Conditions, Oct  
 15 p 918  
 Effect of Oxygen in Pig, Nov 12  
 p 1151  
 Industry in Brazil,\* Oct 15 p 888  
 Manufacture by Electrolysis,\* Dec  
 17 p 1390  
 Strength and Ductility of Mallea-  
 ble,\* Oct 22 p 948  
 Titanium and Magnetic Properties  
 of, July 2 p 53  
 Iron, Cast:  
 (See Cast Iron)  
 Iron and Steel Institute:  
 Meeting in Paris Abandoned, Aug  
 27 p 476  
 Papers to Be Presented, Sept 10  
 p 623  
 War Affects the, Dec 10 p 1355  
 Iron Ore:  
 (See Ore)  
 Isthmian Railroads Compared, Traf-  
 fic of, Oct 1 p 816
- J
- Jackman, Edwin S.:  
 Technical Men and Management,  
 Nov 26 p 1244  
 Jackman, E. S., & Co.:  
 Trade Circular, Sept 3 p 541  
 Jacks:  
 Unusual Watson-Stillman Hydraul-  
 ic,\* Nov 19 p 1179  
 James, Henry L.:  
 Getting Speed in the Shop, Nov 12  
 p 1124  
 Japan:  
 Imports of Iron and Steel, Nov 19  
 p 1173  
 Iron, Steel and Machinery Imports,  
 Aug 20 p 459  
 Jeffery Mfg. Company:  
 Industrial Conditions at Plant,\*  
 Nov 5 p 1064  
 Job, Robert:  
 Internal Transverse Fissures in Ax-  
 les,\* July 16 p 144  
 Jobbers Meet the President, Aug 6  
 p 350  
 Johnson, E. A.:  
 Training Foundry Leaders,\* Oct 1  
 p 771  
 Johnson, J. E., Jr.:  
 Material for High Grade Castings,  
 Nov 12 p 1151  
 Johnson, Walter L.:  
 Utilizing Heat in Slag,\* Oct 22  
 p 944  
 Joint Friction, Universal,\* Dec 24  
 p 1438  
 Jones & Laughlin Steel Company:  
 Record in Tin Mill Building, July  
 23 p 211  
 Judicial Decisions:  
 (See Decisions of Interest to Manu-  
 facturers)
- K
- Kane & Roach:  
 Foundry Tumbling Barrel,\* Dec 31  
 p 1525  
 Kapp, N.:  
 Teloher Furnace Charging,\* Dec 17  
 p 1388  
 Keeler, E., Company:  
 Fiftieth Anniversary, Oct 15 p 917  
 Keep, W. J.:  
 Coke of the Cupola Dump, Nov 5  
 p 1073  
 Kelley, Walter H.:  
 Selecting Refractories for Foundry,  
 Oct 22 p 942  
 Kelly Reamer Company:  
 Head for Long Lathe Boring Bar,\*  
 Oct 29 p 1003  
 Kennedy and Pendleton:  
 Eliminating Waste Motion in Mold-  
 ing,\* Sept 17 p 662  
 Kent, Robert T.:  
 Manufacturing Planning Depart-  
 ment,\* Nov 5 p 1071  
 Kentucky Compensation Act Invalid,  
 Dec 24 p 1452  
 Keyseating Machine, Newton Vertical-  
 Spindle,\* Dec 10 p 1345  
 King, F. W.:  
 Color in Safety Goggle Lenses,\*  
 July 23 p 194  
 King, F. W., Optical Company:  
 Color in Safety Goggle Lenses,\*  
 July 23 p 194  
 Safety Goggles for Hot Conditions,\*  
 July 16 p 149  
 Klinkenberg, A.:  
 Talbot and Other Furnaces, Nov 12  
 p 1118  
 Koppers, H., Company:  
 By-Product Coke Ovens, Maryland  
 Steel Company,\* Nov 19 p 1165  
 Kunze, J. V.:  
 Water Wheel Trade in South Amer-  
 ica, Nov 5 p 1083
- L
- Labor:  
 Agreement on Iron Rolling Mill  
 Scale, July 16 p 177  
 Amending Clayton Anti-Trust Bill,  
 July 9 p 122  
 American Steel & Wire Company's  
 Employees' Gardens,\* Oct 1 p  
 768  
 Bonus Distribution, Youngstown  
 Sheet & Tube Company, July  
 30 p 289  
 Carnegie Steel Company May Re-  
 duce Wages, Oct 8 p 866  
 Clayton Anti-Trust Bill as Agreed  
 Upon, Oct 1 p 797  
 Clayton Bill as Reported to Senate,  
 July 23 p 233  
 Cleveland Hardware Company's  
 Departure in Industrial Man-  
 agement,\* July 2 p 1  
 Cleveland Hardware Company's  
 Roof Garden,\* Oct 1 p 755  
 Compensation Acts and Industrial  
 Diseases, Oct 1 p 807  
 Compensation in Massachusetts,  
 Oct 29 p 1006  
 Compensation Laws and Married  
 Men, Oct 22 p 954  
 Factory Workers as Agricultur-  
 ists,\* Aug 20 p 417  
 Failure of Amalgamated Confer-  
 ence, July 2 p 55  
 First Aid Treatment of Injured,  
 Dec 17 p 1420  
 Fogging a Clayton Bill Issue, July  
 16 p 156  
 Hydraulic Pressed Steel Company's  
 House Organ,\* Oct 1 p 766  
 Improvement in Housing Workmen,  
 Sept 17 p 671  
 Industrial Conditions at Jeffrey  
 Plant,\* Nov 5 p 1064  
 Iron and Steel Wages and Hours,  
 Nov 12 p 1147  
 Kentucky Compensation Act In-  
 valid, Dec 24 p 1452  
 Massachusetts Compensation's First  
 Year, Aug 20 p 432  
 Meeting on Compensation and Un-  
 employment, Dec 17 p 1421  
 Mistakes in Factory Work,\* Aug 13  
 p 376  
 Modified Bonus Wage Payment,\*  
 Dec 17 p 1384  
 National Carbon Company's Profit-  
 Sharing, July 2 p 27  
 New York Compensation Act, Mar-  
 ried Workmen, Aug 20 p 430  
 New York Workmen's Compensa-  
 tion Act and Married Em-  
 ployees, Aug 6 p 332

- No Wage Reduction by Steel Corporation, Dec 24 p 1452  
 Production and Fatigue, Oct 1 p 776  
 Profit-Sharing Plan, W. S. Tyler Company, July 23 p 201  
 Sanitation and Safety First, Pullman Works,\* Oct 1 p 760  
 Scientific Management, Aluminum Castings Company,\* Sept 3 p 523  
 Scientific Management Problems, Dec 10 p 1369  
 Selecting Common, by Standard Physical Test, Nov 5 p 1085  
 Steel Corporation and Wage Reductions, Nov 12 p 1152  
 Stove Founders and Molders Agree on Prices for Molding-Machine Work, July 16 p 159  
 Training Employees, Packard Motor Car Plant, July 30 p 259; Sept 3 p 568  
 Unions and the Clayton Act, Nov 26 p 1260  
 Unions Dictate, Sept 10 p 647  
 Wanted—A Model Compensation Bill, Nov 26 p 1242  
 Waste in Hiring and Discharging Men, Oct 29 p 1032  
 Watertown Arsenal Time Study and Bonus, Nov 19 p 1178  
 Westinghouse Electric Relief Department, Dec 31 p 1497  
 Westinghouse Strike Ended, July 16 p 180  
 Westinghouse Strike Settlement Prospects, July 2 p 56  
 Working Hours in German Steel Plants, July 30 p 251  
 Workmen's Children, Band, Portsmouth Steel Company, Nov 5 p 1083  
 Labor Legislation, American Association:  
 (See American Association for Labor Legislation)  
 Laboratory, Bethlehem Steel Company's,\* Sept 24 p 710  
 Lackawanna Steel Company:  
 Bridge Construction Planned in France, Dec 10 p 1368  
 Cold-Rolled Steel Sheet Piling,\* Oct 8 p 832  
 Elimination of Seams in Rails,\* Dec 10 p 1334  
 Handbook, 1915, Sept 24 p 747  
 Quarterly Statement, July 16 p 174; Oct 22 p 974  
 Railroad May Extend, Nov 12 p 1153  
 Ladder Safety Attachment,\* Sept 10 p 613  
 Lagonda Mfg. Company:  
 New Factory, Aug 6 p 322  
 Laib Company:  
 Cutting Costs in Jobbing Plant,\* July 16 p 131  
 Lake Superior Corporation:  
 Annual Report, Oct 22 p 975  
 Lake Superior Mining Institute:  
 Announcement of Meeting, July 2 p 53  
 Convention Proceedings, Sept 10 p 626  
 Lake Superior Ore:  
 Freight Rate Hearing, Nov 26 p 1263  
 Hill Iron Ores in 1915, Dec 10 p 1353  
 Minnesota Tax, Nov 26 p 1235  
 New Leases of Hill Mines, Oct 15 p 920  
 Rates to Loading Docks, Nov 5 p 1081  
 Shipments in 1914, Dec 3 p 1301  
 Shipments in June, July 10 p 89; Shipments in July, Aug 13 p 381; Shipments in August, Sept 10 p 609; Shipments in September, Oct 8 p 865; Shipments in October, Nov 5 p 1091 and Nov 12 p 1152; Shipments in 1914, Dec 3 p 1301  
 Steel Ore Stocking Trestle,\* Oct 22 p 940  
 Wheeling & Lake Erie New Dock Ore Handling Plant,\* Oct 15 p 880  
 Lamps:  
 Flaming Arc, in Steel Industry, Oct 22 p 947  
 Shop Installation of Cooper-Hewitt Quartz,\* Oct 1 p 774  
 Landau, J. N.:  
 Multiple Spindle Chuck for Drilling,\* July 30 p 269  
 Landis Machine Company:  
 Grinding Attachment for Die Chasers,\* Dec 31 p 1525  
 Langelier Mfg. Company:  
 Special Swaging Machine,\* Sept 24 p 717  
 Lathes:  
 Armstrong Bros., Dog with Safety Shield,\* Nov 12 p 1125  
 Barnes 16-18-in. Screw Cutting Engine,\* Sept 3 p 550  
 Cincinnati Improved 16-in.\* Nov 26 p 1225  
 Dalton 6-in. Bench,\* Sept 10 p 619  
 Detrick & Harvey, Gun Boring,\* Dec 31 p 1486  
 Giddings & Lewis Conradson Multiple-Spindle,\* July 9 p 82  
 International Turret, for Bar and Chuck Work,\* Sept 3 p 537  
 Kelly Head for Long Lathe Boring Bar,\* Oct 29 p 1003  
 Niles-Bement-Pond 30-in. Projectile Turning,\* Dec 10 p 1339  
 Reed-Prentice Automatic Forging,\* July 30 p 266  
 United Engineering Heavy Duty for Turning Rolls,\* Oct 8 p 833  
 Lea-Courtenay Company:  
 Increases Facilities, Oct 8 p 833  
 LeBlond, R. K., Machine Tool Company:  
 Stockroom System,\* Aug 6 p 324  
 Lee, A. H.:  
 Titaniferous Ores in Blast Furnace, Dec 24 p 1471  
 Lee and Nibecker:  
 Turbines in Steel Plants, Nov 19 p 1187  
 Lee, R. H.:  
 Titaniferous Ores in Blast Furnace, Dec 24 p 1472  
 Leg for Work Benches, New Britain Pressed All-Steel, Aug 27 p 481  
 Legislation:  
 Constructive Congressional, Dec 10 p 1351  
 Some Aspects of "Trust," Aug 6 p 331  
 Trade Commission Bill, Aug 13 pp 381 and 387  
 Versus Efficiency, Dec 17 p 1400  
 Leigh, E. B.:  
 Railroad Buying and National Prosperity,\* Oct 29 p 988  
 Lemoine, L. R.:  
 Properties of Southern Foundry Pig Iron, Dec 3 p 1295  
 Lengfelder, H. W.:  
 To Make Molding Machines Effective, July 2 p 3  
 Lewis, E. St. Elmo:  
 Schooling the Entire Organization, July 23 p 208  
 Lewis, Kenneth B.:  
 Cause of "Cuppy" Wire,\* Sept 10 p 599  
 Lewis, Wilfred:  
 Gear Testing Machine,\* July 2 p 18  
 Liege, Industries of,\* Aug 20 p 420  
 Lighting:  
 Electric, Steam Shovel Plants,\* Dec 17 p 1396  
 Flaming Arc Lamp in Steel Industry, Oct 22 p 947  
 Industrial Plants,\* Nov 19 p 1180  
 Linde Air Products Company:  
 Proposed Philadelphia Plant, Oct 22 p 969  
 Lindeman, E.:  
 Moose Mountain Iron of Ontario, Oct 29 p 1025  
 Lindemuth, Lewis B.:  
 Patent for Making Solid Steel Ingots and Castings, Dec 24 p 1443  
 Lindsay, Henry:  
 Dry Cleaning Furnace Gas, July 30 p 262  
 Link-Belt Company:  
 Malleable Foundry at Indianapolis,\* Aug 6 p 308  
 Liquids, Corrosive, Handling,\* Oct 22 p 945  
 Livingstone, William:  
 Automobile Industry, Nov 5 p 1052  
 Lock Company, H. & A.:  
 Punch Press Safety Device,\* Aug 13 p 368  
 Locomotives:  
 Lowest Orders in Years, Nov 26 p 1244  
 McKeen 300-hp Gas Engine Switching, Dec 3 p 1286  
 Orders, July 23 p 205  
 Use of Heat Treated and Alloy Steel, July 16 p 187  
 Vanadium Steel in, Aug 6 p 353  
 Lorain, Ashland & Southern Railroad Finished, Aug 27 p 509  
 Low, F. R.:  
 Pulverized Coal for Steam Making, July 9 p 83  
 Lubricator for Compressed Air Devices, Vulcan Suction, Oct 8 p 839  
 Luckenbach Steamship Company:  
 First Ship to New York by Panama Canal, Sept 3 p 541  
 Lufkin Rule Company:  
 Metallic Tape Threader, Aug 13 p 383  
 Lutz-Webster Engineering Company:  
 Universal Tool for Ratchet Drilling,\* July 16 p 152  
 Lymn Gas-Producer System, with By-Products Recovery, Nov 12 p 1145  
 Lyons Atlas Company:  
 Largest American Diesel Engine,\* Aug 13 p 369

## M

- MacIntyre Iron Company:  
 Titanium Ores in Blast Furnace,\* Oct 22 p 936; Dec 24 p 1470  
 McCleary, James T.:  
 An American Merchant Marine, Aug 6 p 356  
 McKeen Motor Car Company:  
 Gas Engine Switching Locomotive, Dec 3 p 1286  
 McMurray, William:  
 Coke Oven Appliance,\* Sept 17 p 660  
 McMyler Interstate Company:  
 Evolution of Car Dumper,\* Oct 29 p 985  
 McQueen, James W.:  
 Southern Foundry Pig-Iron Properties, Dec 3 p 1294  
 Machine Building on Work Time Contracts, Aug 6 p 332  
 Machinery:  
 And Iron Trades and European War, Aug 6 p 354  
 British and American Trade, Nov 5 p 1079  
 Census Schedule for, Nov 12 p 1155  
 Future Market, July 9 p 100  
 Seeking Trade in South America, Dec 17 p 1422  
 Specifications for Safeguards, Aug 20 p 454  
 Machine Tool Builders:  
 (See National Machine Tool Builders' Association)  
 Machine Tools:  
 Economic Advantages of Special Tooling,\* Aug 6 p 327  
 Export Trade Survey,\* July 23 p 189



- Mistakes in Factory Work,\* Aug 13 p 376  
 Prices, July 30 p 273  
 Prospect Abroad for American, Oct 15 p 896
- Magnesium:**  
 Domestic Production, Oct 1 p 770  
 Effect of Steam on, Oct 1 p 770  
 Supply, Aug 27 p 510  
 Mailing, System in, July 2 p 38
- Majestic Mfg. Company:**  
 Welfare Work, Dec 17 p 1387
- Malcolmson and Walker:**  
 Universal Joint Friction,\* Dec 24 p 1438
- Malleable Iron, Strength and Ductility of,** Oct 22 p 948
- Management:**  
 Aluminum Castings Company Scientific,\* Sept 3 p 523  
 American Blast Furnace Practice,\* July 2 p 30; July 9 p 92; July 16 pp 153 and 178  
 American Conservation of Human Resources, Sept 24 p 727  
 American Steel & Wire Company's Employees' Gardens,\* Oct 1 p 768  
 Band Composed of Workmen's Children, Portsmouth Steel Company, Nov 5 p 1083  
 Budget Making, Oct 1 p 804  
 Business Crisis—How Met, Sept 10 p 610  
 Cleveland Hardware Company's Departure in Industrial,\* July 2 p 1  
 Cleveland Hardware Company's Roof Garden,\* Oct 1 p 755  
 Committees for Controlling Manufacture, Oct 8 p 822  
 Croxton Efficiency System,\* July 2 p 57  
 Economies by Co-Operation, Nov 19 p 1183  
 Economics of the Two-Story Foundry, Sept 10 p 604  
 Efficiency in Hiring, Nov 5 p 1087; Nov 19 p 1189  
 Eliminating Waste Motion in Molding,\* Sept 17 p 662  
 Employers Want Ideas, Nov 12 p 1117  
 Factory Workers as Agriculturists,\* Aug 20 p 417  
 Finding Cost from Selling Price, July 2 p 20  
 Getting Speed in the Shop, Nov 12 p 1124  
 Human Element, Dec 3 p 1297  
 Hydraulic Pressed Steel Company's House Organ,\* Oct 1 p 766  
 Jeffrey Plant Industrial Conditions,\* Nov 5 p 1064  
 Labor Problems in Scientific, Dec 10 p 1369  
 Laib Company Cutting Handling Costs,\* July 16 p 131  
 LeBlond Stockroom System,\* Aug 6 p 324  
 Majestic Mfg. Company's Welfare Work, Dec 17 p 1387  
 Manufacturing Planning Department, H. H. Franklin Mfg. Company,\* Nov 5 p 1068  
 Measuring Efficiency in Industrial Work, Dec 3 p 1320  
 Minimizing Cost of Special Tool Work, July 2 p 26  
 Modified Bonus Wage Payment,\* Dec 17 p 1384  
 Molding-Machine Sales Methods, July 9 p 99  
 National Carbon Company's Profit-Sharing Plan, July 2 p 27  
 Organizing and Managing a Foundry, Nov 5 p 1074; Nov 12 p 1146  
 Packard Motor Car Company Training Employees, July 30 p 259; Sept 3 p 568  
 Production and Fatigue, Oct 1 p 776  
 Profit-Sharing Plan of W. S. Tyler Company, July 23 p 201
- Refrigerated Drinking Water Systems, Sept 3 p 589  
 Repair Department of Steel Plant, Nov 5 p 1053  
 Results of Applied Scientific,\* July 2 p 14; July 9 p 90; July 16 p 134  
 Sanitation and Safety First at Pullman Works,\* Oct 1 p 760  
 Schooling the Entire Organization, July 23 p 208  
 Selecting Common Labor by Standard Physical Test, Nov 5 p 1085  
 Society Meeting, Oct 29 p 1029  
 Standardization in the Factory,\* Dec 3 p 1280  
 Steel Plant Repair System, Dec 3 p 1316  
 Stock in a Factory, Keeping Track of,\* Aug 20 p 429  
 System in Mailing, July 2 p 38  
 Technical Men and, Nov 26 p 1244  
 Time to Put Plant in Order, Dec 17 p 1416  
 To Make Molding Machines Effective, July 2 p 3  
 Waste in Hiring and Discharging Men, Oct 29 p 1032  
 Watertown Arsenal Time Study and Bonus, Nov 19 p 1178  
 Westinghouse Electric Relief Department, Dec 31 p 1497  
 Why Give Away "Good Will"? Oct 29 p 1031
- Management, Scientific, Society:**  
 (See Society to Promote the Science of Management)
- Manganese:**  
 Bronze as Engineering Material,\* Sept 3 p 538  
 Higher Prices for Ore, Sept 3 p 565  
 New Steel, Nov 26 p 1230  
 Ore and Ferromanganese, Sept 24 p 721  
 Ore Production, 1913, Aug 27 p 514  
 Production of Ores, July 23 p 194  
 Steel Castings, to Make High, Dec 31 p 1485
- Manufacture, Committees for Controlling,** Oct 8 p 822
- Manufacturing Planning Department,\*** Nov 5 p 1068
- Maryland Steel Company:**  
 By-Product Coke Ovens,\* Nov 19 p 1165
- Maskrey and Carnahan:**  
 Uniform Oxidizing of Sheets, Dec 17 p 1396
- Massel, J. A.:**  
 Seeking Machinery Trade in South America, Dec 17 p 1422
- Mathews and Stagg, Jr.:**  
 Factors in Hardening Tool Steel,\* Dec 10 p 1340
- Mathias, T. H.:**  
 Elimination of Seams in Steel Rails,\* Dec 10 p 1334
- Matthews, James H., & Co.:**  
 To Prevent Stealing of Tools, Sept 24 p 716
- Mayari Steel Chisel, Test of,\*** Dec 3 p 1323
- Meaker Company:**  
 History of Galvanizing Industry, July 9 p 129
- Measuring Efficiency in Industrial Work,** Dec 3 p 1320
- Mechanical Engineers:**  
 (See American Society of Mechanical Engineers)
- Mechanics Machine Company:**  
 Rapid Finishing of Automobile Castings,\* Dec 3 p 1282
- Medart Patent Pulley Company:**  
 Steel Rim Pulley Manufacture,\* Sept 3 p 532
- Merchant Marine:**  
 Amended Navigation Law, Aug 20 p 436  
 Developments, Oct 15 p 914  
 Editorial on, Dec 31 p 1499  
 Emergency Vessel Measures, Aug 27 p 512
- How to Meet American Need,** Aug 6 p 356
- Our Crippled Sea Service,** Aug 6 p 330
- Meriam, J. B.:**  
 Steam as a By-Product,\* Oct 1 p 764
- Mesta Machine Company:**  
 Large Gas Blowing Engines, Oct 15 p 897  
 To Build Stumpf Engines, Dec 17 p 1403
- Metals:**  
 Calorimetric Determination of Fatigue of, Nov 5 p 1066  
 Classification, Standard Old, Dec 31 p 1516  
 Rise and Fall of, Oct 8 p 841  
 Spraying, Schoop Process of,\* Aug 20 p 426
- Metals Coating Company of America:**  
 Schoop Metal Spraying Process,\* Aug 20 p 426
- Meters, Application of Liquid,** Aug 6 p 315
- Mexican Imports from This Country,** Oct 22 p 973
- Michigan:**  
 Tonnage Tax on Copper, Iron Ore and Coal, Aug 27 p 480
- Midvale Steel Company:**  
 Successful Bidder for Armor and Shells, Nov 5 p 1049
- Milburn, Alexander, Company:**  
 Removal of Ship's Boilers,\* Nov 5 p 1067
- Miller, Herbert F., Jr.:**  
 Design of Ports for Open-Hearth Furnaces,\* Sept 3 p 554
- Milling Cutter, O. K., Inserted Tooth Slab,\*** Oct 29 p 997
- Milling Machines:**  
 Bemis Attachment for,\* July 2 p 13  
 Brown & Sharpe Attachment for Cutting Short Lead Spirals,\* Dec 3 p 1293  
 Hendey, for Bridge Reamers,\* Nov 5 p 1082  
 Hendey Heavy Rapid Production,\* Sept 3 p 551  
 Newton, Adapted for Special Work,\* Oct 8 p 821  
 Niles - Bement - Pond Horizontal,\* Aug 27 p 485  
 O. K. Tool Holder Company's Cutter,\* Oct 29 p 997
- Mining Engineers:**  
 (See American Institute of Mining Engineers)
- Mining Institute:**  
 (See Lake Superior Mining Institute)
- Minnesota:**  
 Iron-Ore Tax, Nov 26 p 1235  
 Mining Districts, July 9 p 117
- Mixer, Prof. Charles W.:**  
 Modified Bonus Wage Payment,\* Dec 17 p 1384
- Modern Tool Company:**  
 Grinding Machine,\* Dec 31 p 1526
- Moerl, F.:**  
 Sanitation and Safety First at Pullman Works,\* Oct 1 p 760
- Moffatt-Irving Steel Works, Ltd.:**  
 Electric Steel from Ore Fines,\* Oct 15 p 877
- Moldenke, Dr. Richard:**  
 Molding Sand Problem, Important, Sept 3 p 544
- Molding:**  
 Eliminating Waste Motion,\* Sept 17 p 662
- Molding Frame, Becker New Type,\*** July 30 p 252; Aug 6 p 315
- Molding Machines:**  
 International Electric Vibrator,\* July 16 p 146  
 Sale Methods, July 9 p 99  
 Stove Founders and Molders Agree on Prices, July 16 p 159  
 To Make Them Most Effective, July 2 p 3

- Molding, Quantity Production, Golden's Foundry & Machine Company,\* Sept 3 p 531  
 Molding Sand Problem, Important, Sept 3 p 544  
 Moller & Schumann Company: Salesmen's Convention, Aug 27 p 487  
 Monaghan, George F.: Employers' Liability Legislation, Nov 26 p 1239  
 Monarch Engineering & Mfg. Company: Portable Tire Heater,\* Nov 26 p 1236  
 Moose Mountain Iron Ores of Canada, Oct 29 p 1025  
 Morey, Arthur T.: Safety Movement Developments, Sept 24 p 716  
 Morrison, W. L.: Electric Furnace in the Foundry, Oct 1 p 777  
 Power Consumption of Electric Furnaces, Dec 17 p 1402  
 Motors: Allen-Bradley Compression Starters for,\* Oct 8 p 831  
 Manufacturing Starting Outfits, Electric Auto Light Company,\* Oct 15 p 875  
 Mouth Piece, Sanitary, for Blow-pipes,\* Dec 24 p 1445  
 Mulvey, James: Green Sand Cores, Oct 1 p 774  
 Murphy, H. D.: System in Mailing, July 2 p 38  
 Tracing Shipments, Oct 29 p 1030

## N

- Nagel, Oskar: Styrian Erzberg Iron-Ore Output,\* Aug 27 p 482  
 Narrows Siphon of Catskill Aqueduct,\* Aug 13 p 365  
 National-Acme Mfg. Company: Keeping Track of Stock in a Factory,\* Aug 20 p 429  
 National Association of Brass Manufacturers: Annual Meeting, Dec 31 p 1501  
 Official Catalogue, Oct 22 p 969  
 National Association of Waste Material Dealers: Aims of a Scrap-Iron Organization, July 16 p 141  
 Standard Old Metal Classification, Dec 31 p 1516  
 National Automatic Tool Company: Heavy Multiple Drilling Machine,\* Aug 27 p 477; Dec 3 p 1277  
 Multiple-Spindle Drilling Machine,\* July 30 p 270  
 National Carbon Company: Demand for Lighting Carbons, Oct 29 p 997  
 Profit-Sharing Plan, July 2 p 27  
 National City Bank to Aid Export Trade, July 9 p 88  
 National Committee on Latin-American Trade, Sept 24 p 743  
 National Council for Industrial Safety: Convention Programme, Sept 24 p 740  
 Proceedings of Convention, Oct 15 p 897; Oct 22 p 946  
 National Foreign Trade Council: Convention Plans, Sept 24 p 743  
 Convention, St. Louis, January, Dec 24 p 1475  
 National Founders' Association: (See Founders' Association)  
 National Machine Tool Builders' Association: Convention Announcement, Sept 10 p 600  
 Convention Programme, Oct. 15 p 891  
 Proceedings of Convention, Oct 29 p 1005  
 National Society for Promotion of Industrial Education: Convention Announcement, Sept 24 p 741  
 Convention Programme, Nov 19 p 1171  
 National Steel Tie Company: Steel Railroad Tie,\* Oct 8 p 830  
 National Supply & Machinery Dealers' Association: Annual Meeting, Oct 29 p 1005  
 National Umbrella Frame Company: Corrugated Lock Washer,\* Nov 26 p 1232  
 Navy, Electric Drive in, Dec 31 p 1517  
 Navy Yards: Why They Can Bid Low, Nov 19 p 1190  
 Work, Expensive, Dec 24 p 1475  
 Nehls, Carl, Alloy Company: Pyrometer,\* Dec 31 p 1491  
 Neil & Smith Electric Tool Company: Portable Lathe Center Grinding Machine,\* Sept 3 p 546  
 Neilson, George H.: Crucible Steel Manufacture,\* July 2 p 4  
 New Britain Machine Company: Pressed All-Steel Work Bench Leg, Aug 27 p 481  
 New England Machine-Tool Manufacturers Look for Foreign Trade, Aug 27 p 510  
 New Process Gear Corporation: Business Growing, Sept 10 p 603  
 New South Wales: Broken Hill Proprietary Company's Works, Sept 24 p 715  
 Pig-Iron Production, 1913, Nov 19 p 1179  
 New York City: Narrows Siphon,\* Aug 13 p 365  
 New York Workmen's Compensation Act and Married Employees, Aug 6 p 332  
 Newark Foundrymen's Association: (See Foundrymen's Associations)  
 Newark Industrial Exposition, Aug 20 p 419  
 Newton Machine Tool Works, Inc.: Adapting a Machine for Special Work,\* Oct 8 p 821  
 Long Use of Shop Machine,\* Sept 24 p 714  
 Rotary Planing Machines,\* Dec 24 p 1440  
 Vertical-Spindle Keyseating Machine,\* Dec 10 p 1345  
 Niagara Coke Corporation: War Stops New Buffalo Coke Plant, Aug 20 p 439  
 Niagara Machine & Tool Works: Heavy Sheet Bending Machine,\* Oct 29 p 990  
 Nibecker and Lee: Steel Plant Turbines, Nov 19 p 1187  
 Nichols, Wesley G.: Patent for Making Manganese Steel, July 30 p 267  
 Niedner and Withrow: Testing Reinforcing Bars, Aug 6 p 323  
 Niles-Bement-Pond Company: Combination Horizontal Boring, Milling and Drilling Machine,\* Aug 27 p 485  
 Gigantic Boring Mill,\* Sept 24 p 706  
 Heavy 30-in Projectile Turning Lathe,\* Dec 10 p 1339  
 Motor-Driven Feed Planing Machine,\* July 16 p 150  
 Planing Machine for Elevator Guides,\* July 16 p 133  
 Niles Forge & Mfg. Company: To Enlarge, Nov 26 p 1227  
 Noble & Westbrook Mfg. Company: Machine for Marking Shrapnel Fuse Caps,\* Dec 24 p 1444  
 Noble Electric Steel Company: Manufacturing Ferromanganese, Sept 3 p 568  
 Noise from Ventilating Fans, July 23 p 210  
 Non-Ferrous Castings, Strength of,\* Aug 13 p 370

- Norcross, George B., & Co.: German and Swedish Chrome Tool Steel Tubing, Sept 24 p 726  
 Nordberg Mfg. Company: Diesel Engine, 1250-hp,\* Sept 10 p 601  
 Pumps for New Orleans, Making Unusual,\* Nov 5 p 1060  
 Northern Engineering Works: Crane Trolley with Safety Features,\* Dec 17 p 1396  
 Northern Iron Company: Recent Chateaugay Pig-Iron Analyses, Dec 17 p 1417  
 Northwestern Iron Company: Briquetting Ore, Nov 26 p 1258  
 Norton Companies: Factory Workers as Agriculturists,\* Aug 20 p 417  
 Nozzle Brick for Steel Foundry Ladles,\* Sept 24 p 708  
 Nuts, Billings & Spencer Wrench Sizes for, Sept 3 p 589

## O

- Oakes Pressed Steel Company: Pressed Steel Pulley,\* Sept 24 p 707  
 Substitutes for Forgings and Castings, July 2 p 2  
 Obituary: Ainsworth, Henry A., Nov 12 p 1153  
 Allen, Charles T., Nov 12 p 1153  
 Anderson, William H., Aug 13 p 403  
 Ayers, William N., Sept 24 p 739  
 Baird, Charles W., Sept 17 p 686  
 Barnard, Montrose, Aug 6 p 353  
 Barton, Charles S., July 16 p 173  
 Block, Joseph, Dec 10 p 1374  
 Boggs, Henry H., Nov 12 p 1153  
 Boileau, John W., Oct 15 p 917  
 Bouillon, Georges, Nov 12 p 1153  
 Bowler, Walter N., Sept 24 p 739  
 Box, T. Morris, Aug 20 p 464  
 Brayton, James T., Dec 10 p 1374  
 Brooks, Oliver K., Sept 17 p 686  
 Browne, Samuel J., July 9 p 121  
 Burnham, Charles C., Oct 8 p 862  
 Burns, Thomas, Oct 8 p 862  
 Cadman, Alex. W., July 30 p 290  
 Canda, Charles J., Dec 10 p 1374  
 Christy, Samuel B., Dec 10 p 1374  
 Clark, William E., Aug 6 p 353  
 Coates, George R., Sept 3 p 584  
 Cohen, Andrew J., Oct 15 p 917  
 Colby, Edward B., July 23 p 232  
 Condon, Morris G., Dec 24 p 1474  
 Culver, W. W., July 23 p 232  
 Cushman, Austin F., Dec 10 p 1374  
 Daker, John, Aug 27 p 509  
 Danforth, Charles W., Aug 20 p 464  
 Eccles, William W., Aug 27 p 509  
 Emerson, Ralph, Sept 3 p 584  
 Etting, Newbold, Dec 10 p 1374  
 Evans, Quimby N., July 16 p 173  
 Fawell, Joseph,\* Oct 8 p 862  
 Fox, Jacob, Dec 24 p 1474  
 Frink, John M., Sept 10 p 641  
 Glauber, Joseph H., Dec 3 p 1325  
 Gordon, Lyman F.,\* Dec 24 p 1474  
 Goss, Frederick L., Nov 12 p 1153  
 Gould, Charles M., Oct 22 p 970  
 Green, James, Oct 29 p 1037  
 Greenslade, O. W., Nov 19 p 1204  
 Griffin, Thomas A., Aug 20 p 464  
 Guerber, Paul A. E., Sept 17 p 686  
 Hadley, Artemus N., Dec 24 p 1474  
 Hall, Charles M., Dec 31 p 1513  
 Hall, William H., Aug 20 p 464  
 Harder, Victor A., Aug 20 p 464  
 Hardley, J. Wheeler, July 30 p 290  
 Harvey, Alexander, Dec 3 p 1325  
 Hawkrige, Edwin, Oct 29 p 1037  
 Heinsheimer, J. A., Oct 15 p 917  
 Helander, Axel H., Oct 22 p 970  
 Hermans, W. S., Nov 12 p 1153  
 Hess, Alfred, Dec 31 p 1513  
 Hill, Uriah, Jr., Nov 19 p 1204  
 Holland, John P., Aug 20 p 464  
 Hughes, Thomas E., Sept 3 p 584  
 Jacob, Joseph W., Nov 19 p 1204  
 Jacobsen, Samuel, Dec 31 p 1513  
 Jennings, P. R., Sept 24 p 739  
 Johnston, Robert H., Oct 29 p 1037

- Judge, A. J., July 23 p 232  
 Kidder, Richard E., July 16 p 173  
 Kilby, Joseph F., July 16 p 173  
 Langeloth, Jacob, Aug 20 p 464  
 Lappan, Thomas B., July 23 p 232  
 Law, Archibald F., July 23 p 232  
 Lazare, Adrian H., Nov 12 p 1153  
 Le Fevre, James H.,\* Oct 29 p 1037  
 Lehman, Moses, Dec 10 p 1374  
 Lewis, Sir W. T., Sept 10 p 641  
 Lippert, Ernest T., Dec 10 p 1374  
 Loddell, William W., Oct 15 p 917  
 Locke, Nathaniel C., Aug 6 p 353  
 Loder, Morris G., July 23 p 232  
 Logemann, Rudolph J., Sept 3 p 584  
 Lott, Glenn C., Sept 17 p 686  
 Loy, Edward P., July 30 p 290  
 Lynch, Thomas, Dec 31 p 1513  
 McIlvain, William R., July 30 p 290  
 Marbach, William A., July 30 p 290  
 Martens, Adolf,\* Aug 6 p 353  
 Martin, Douglas S., Dec 3 p 1325  
 Mason, William H., Oct 15 p 917  
 Massnick, F. C., Dec 17 p 1424  
 Matthews, A. T., Dec 10 p 1374  
 Meier, Col. E. D.,\* Dec 17 p 1424  
 Meier, Theodore G., Aug 27 p 509  
 Melcher, Henry J. G., Nov 12 p 1153  
 Mendenhall, J. K., Aug 27 p 509  
 Montross, Levi H., Oct 1 p 806  
 Mooney, W. M., Dec 31 p 1513  
 Moore, Charles A.,\* Dec 17 p 1393  
 Murray, J. Weidner, July 23 p 232  
 Nicholas, D. J., Nov 5 p 1109  
 Noe, Walter C., Dec 31 p 1513  
 Nye, Francis H., Aug 20 p 464  
 Page, E. C., Dec 17 p 1424  
 Page, William C., July 30 p 290  
 Parker, Arthur M., July 9 p 121  
 Philbin, Donald M., Aug 13 p 403  
 Potter, William B., July 16 p 173  
 Pratt, William H., Sept 10 p 641  
 Prescott, John B., July 30 p 290  
 Rasmussen, Hans G., Nov 12 p 1153  
 Rawlins, John A., Sept 3 p 584  
 Richards, William H., Oct 22 p 970  
 Ricks, Charles A., Aug 27 p 509  
 Riley, Edward, Oct 8 p 862  
 Robinson, James H., Oct 1 p 806  
 Rowell, Henry K., Aug 27 p 509  
 Rowland, James M., July 23 p 232  
 Sand, Alfred, Oct 22 p 970  
 Sanders, David P., Nov 12 p 1153  
 Schernikow, E. O., July 23 p 232  
 Schroeder, Fred J., Aug 6 p 353  
 Schwertner, F. A., Sept 10 p 641  
 Sciple, Henry M., Nov 26 p 1259  
 Seidel, Christian N., Nov 26 p 1259  
 Semple, Charles H., Dec 31 p 1513  
 Sexton, A. W., Jr., Oct 22 p 970  
 Shays, Frederick C., Aug 6 p 353  
 Shields, Henry B., Dec 24 p 1474  
 Smith, Herman, Dec 24 p 1474  
 Soisson, Joseph, July 30 p 290  
 Somers, Joseph L., Sept 17 p 686  
 Spacke, William, Dec 3 p 1325  
 Sparks, Charles, July 23 p 232  
 Stewart, George R., Dec 24 p 1474  
 Stewart, Hugh T., Dec 3 p 1325  
 Stilson, Roscoe H., Oct 22 p 970  
 Stolp, John C. E., Oct 8 p 862  
 Taintor, Charles C., Oct 1 p 806  
 Tallman, W. H., July 30 p 290  
 Thompson, John, July 30 p 290  
 Thum, Frederick A., Oct 1 p 806  
 Tompkins, Daniel A., Oct 22 p 970  
 Ulrich, C. F., Dec 17 p 1424  
 Van Cleve, Spencer, Oct 15 p 917  
 Van Dorn, James H., Sept 3 p 584  
 Van Nortwick, W. M., Nov 19 p 1204  
 Von Spreckelson, F. G., Dec 31 p 1513  
 Walker, William J., Dec 24 p 1474  
 Walton, Pearson M., Aug 6 p 353  
 Warren, Walter P., Aug 13 p 403  
 Warwick, George T., Oct 8 p 862  
 White, William R., Oct 22 p 970  
 Williamson, Clarence, Nov 19 p 1204  
 York, James E., Oct 22 p 970
- O h i o Manufacturers' Association Meeting, Dec 10 p 1353  
 O. K. Tool Holder Company: Inserted Tooth Slab Milling Cutter,\* Oct 29 p 997
- Olsen, T. Y.:  
 Drill Testing Machine,\* July 16 p 142
- Ore:  
 Call for Texas Iron, Aug 20 p 439  
 Germany's Iron Production, 1913, Dec 24 p 1445  
 Goltra Concentration Process, Nov 12 p 1148  
 Higher Prices for Manganese, Sept 3 p 565  
 Historic Connecticut Iron Making,\* July 30 p 254  
 Iron, in the Philippines, Dec 31 p 1530  
 Iron Output and Consumption, Sept 3 p 567  
 Iron Output, Alsace-Lorraine, 1913, Sept 3 p 543  
 Iron Output, Styrian Erzberg,\* Aug 27 p 482  
 Manganese and Ferromanganese, Sept 24 p 721  
 Manganese from India, Dec 31 p 1518  
 Manganese Production, 1913, Aug 27 p 514  
 Michigan Tonnage Tax on, Aug 27 p 480  
 Moose Mountain Iron of Canada, Oct 29 p 1025  
 Operations at Tofo Mines, 1914,\* Dec 24 p 1448  
 Peat in Iron-Ore Industry, Aug 27 p 490  
 Production of Manganese, July 23 p 194  
 Steel Direct from Fines,\* Oct 15 p 877  
 Swedish Iron Exports in August, Nov 5 p 1081  
 Thomas Iron Company's Find, July 30 p 258  
 Titaniferous, in Blast Furnace, Oct 22 p 936; Dec 24 p 1470  
 To Report Canadian Mining Industry, Oct 8 p 843  
 United States Iron Output, 1913, Sept 3 p 555
- Orenstein-Arthur Koppel Company: Development in Iron Ore Cars,\* Sept 17 p 664
- Osborn, J. M. & L. A., Company: Harmony Club, Dec 31 p 1527
- Osswald, Franz: Device to Prevent Cupola Explosions, July 30 p 250
- Otis Steel Company: Starts New Plant, Sept 17 p 673
- Outerbridge, Alex. E., Jr.: American Conservation of Human Resources, Sept 24 p 727
- Oxy-Acetylene: Certain Apparatus Condemned, Aug 27 p 476  
 Torch, Removing Ship's Boilers by,\* Nov 5 p 1067  
 Welds, July 30 p 250
- Oxygen: Apparatus for Testing Purity, Oct 15 p 879  
 Effect in Pig Iron, Nov 12 p 1151  
 In Steel, Nov 19 p 1173
- P
- Pacific Coast, Lower Rail Rates to, Aug 27 pp 493 and 495
- Pacific Coast Steel Company: Takes Over Western Steel Corporation, July 30 p 291
- Pack, Charles: Die-Casting Practice, Sept 24 p 722
- Packard Motor Car Company: Training Employees, July 30 p 259; Sept 3 p 568
- Panama Canal: First Ship to New York by, Sept 3 p 541  
 Opened August 15, Aug 20 p 432
- Panama-Pacific Exposition: Early Exhibitors, Nov 19 p 1182  
 Machinery Hall Cranes,\* Dec 10 p 1333
- Mine at the, July 9 p 89  
 Pipe Welding,\* Nov 5 p 1083  
 To Open as Scheduled, Sept 10 p 629  
 Tower of Jewels at, July 23 p 205  
 United States Steel Corporation's Exhibit, Dec 17 p 1425
- Panic of 1913, Lost, Oct 1 p 780
- Panics and Depressions, Periodicity of, Oct 8 p 842
- Parish Mfg. Company: French Army Motor Truck Frames, Oct 22 p 974
- Patents:  
 Air-Cooled Blast Furnace Stack, July 30 p 271  
 Compulsory Licenses, July 30 p 262  
 Converting Cast Iron Into Steel or Malleable Iron, Dec 24 p 1443  
 Improving Pig Iron to Equal Cold-Blast Iron, Dec 24 p 1443  
 Making Manganese Steel, Improved Method for, July 30 p 267  
 Melting Ferromanganese, Sept 24 p 713  
 Method of Making Iron and Steel Sheets, Oct 1 p 805  
 New Manganese Steel, Nov 26 p 1230  
 Oxidized Finish for Sheets, Sept 24 p 754  
 Solid Steel Ingots and Castings, Dec 24 p 1443  
 Uniform Oxidizing of Sheets, Dec 17 p 1396  
 War and Our Law, Aug 13 p 385
- Paterson Industrial Exposition, Oct 8 p 857
- Patterns, Coloring, for Castings, Nov 19 p 1179; Dec 3 p 1300
- Patterson, W. W., Company: Record Size Hook Block,\* July 9 p 78
- Peat in Iron-Ore Industry, Aug 27 p 490
- Pedrick Tool & Machine Company: Large Pipe-Bending Machine,\* Aug 20 p 419
- Peerless Foundry Company: Becker Molding Frame, Aug 6 p 315
- Pelton Water Wheel Company: Trade in South America, Nov 5 p 1083
- Pendleton and Kennedy: Eliminating Waste Motion in Molding,\* Sept 17 p 662
- Penn Metal Company: Absorbs Eastern Expanded Metal Company, Dec 31 p 1517
- Pennsylvania: Improvement in Housing Workmen, Sept 17 p 671
- Pennsylvania Industrial Welfare and Efficiency Conference: Convention Proceedings, Nov 26 p 1231
- Pennsylvania Railroad: New Steel Box Car, Aug 20 p 454  
 Rail Order Largely on Present Specifications, July 2 p 39  
 Testing Plant and Laboratory, Oct 8 p 839
- Pennsylvania Steel Company: Large Mesta Gas Blowing Engines, Oct 15 p 897  
 Mayari Steel Chisel,\* Dec 3 p 1323  
 New Blast Furnace at Steelton, Pa., July 2 p 22  
 Plant Unique in Flexibility,\* Sept 10 p 614
- Pepper, Charles M.: Markets of South America and the War, Aug 27 p 473  
 Seaboard Smelter for Bolivian Tin, Nov 19 p 1205
- Pfoser-Strack-Stumm Blast Furnace Stove System, Dec 3 p 1318
- Philadelphia Foundrymen's Association: (See Foundrymen's Associations)
- Philippine Islands: Iron and Steel Imports, Oct 8 p 859  
 Iron Ore in, Dec 31 p 1530



- Phillips, William B.:  
Goltra Concentration Process, Nov 12 p 1148
- Photographs, Value of Small Detail, Aug 13 p 387
- Physical Test, Selecting Common Labor by, Nov 5 p 1085
- Pickard and Potter:  
Oxygen in Steel, Nov 19 p 1173
- Pig Iron:  
Addy, Matthew, & Co. on Southern Rate Reduction, July 16 p 177  
And Scrap Prices, Oct 1 p 782  
British Production for First Half, 1914, Aug 27 p 489  
Celebrating 75 Years of Anthracite, July 2 p 60  
Decline in German Output, Oct 29 p 1035  
Decrease in German Output for Six Months, July 23 p 211  
Effect of Southern Rate Decision at Chicago, July 9 p 103  
Helfenstein Electric Furnace,\* Aug 27 p 478  
Lower Tariffs on Virginia, Sept 3 p 588  
Monthly Statement,\* July 9 p 102; Aug 6 p 334; Sept 10 p 628; Oct 8 p 844; Nov 5 p 1090; Dec 10 p 1354  
New South Wales Production, 1913, Nov 19 p 1179  
New Southern Freight Rates, Oct 8 p 866  
New Virginia Rates Confused, Oct 22 p 957  
Old Low Points in Production, Oct 8 p 840  
Properties of Southern Foundry, Dec 3 p 1294  
Recent Analyses of Chateaugay, Dec 17 p 1417  
Reduction in Virginia Rates to New England and Middle Atlantic States, July 16 p 178  
Schedule, 1914 Census, July 16 p 176  
Steel Making Requirements, July 23 p 213  
Stobie Patent for Improving to Equal Cold-Blast Iron, Dec 24 p 1443  
Southern Freight Rates Reduced, July 9 p 100  
Southern Freight Rates, Dec 31 p 1516  
Southern Rate Case Revised, Nov 12 p 1152  
Southern Rate Reductions Not Made by All Roads, Oct 1 p 808  
United States Production First Half, Aug 20 p 434  
Why Not Help the Pig-Iron Men? Sept 17 p 672
- Piling, Lackawanna Cold-Rolled Steel Sheet,\* Oct 8 p 832
- Pipe:  
And Bars in the Iron Column, Dec 3 p 1298  
Cast-Iron Trade, Nov 5 p 1088  
Genuine Wrought-Iron, July 23 p 196  
Hand Bending Machine for,\* Aug 20 p 419  
Narrows Siphon of Catskill Aqueduct,\* Aug 13 p 365  
Panama-Pacific Pipe Welding,\* Nov 5 p 1083  
Production of Wrought and Cast, 1913, Dec 31 p 1514  
Southern Well Works Reversible Tong,\* July 2 p 23  
Speed in Threading, Aug 6 p 322  
To Standardize Iron Conduit, July 16 p 174  
Piping in Steel Castings, Preventing,\* Oct 8 p 834
- Pittsburgh:  
Export Movement, Oct 15 p 918  
Pittsburgh Foundrymen's Association:  
(See Foundrymen's Associations)
- Pittsburgh Manganese Ore Company,  
Oct 8 p 863
- Pittsburgh Steel Company:  
Annual Report, Oct 15 p 916
- Planing Machines:  
Cincinnati Self-Contained,\* Dec 31 p 1484  
Newton Rotary,\* Dec 24 p 1440  
Niles-Bement-Pond, for Elevator Guides,\* July 16 p 133  
Niles-Bement-Pond Motor-Driven Feed,\* July 16 p 150  
Planning Department, Manufacturing with a,\* Nov 5 p 1068  
Plate, Sheet and Tin-Plate Production in 1913, July 23 p 234  
Plates, Makers of Special Wanted, Nov 12 p 1132  
Plumbing and Heating Trades Lists, Dec 17 p 1395  
Poorman, O. O., Company:  
Test of Corrugating Rolls,\* Nov 19 p 1177
- Portevin, A. M.:  
Decarburization of Steel,\* Oct 22 p 934
- Portsmouth Steel Company:  
Band Composed of Workmen's Children, Nov 5 p 1083  
Ohio Metal, July 9 p 79  
Portsmouth Iron, July 16 p 143
- Post, George A.:  
Supplymen's View of Rate Decision, Aug 13 p 369
- Potter & Johnson Machine Company:  
Manufacturing Electric Starting Outfits,\* Oct 15 p 875  
To Build Machines in England, July 16 p 174
- Potter and Pickard:  
Oxygen in Steel, Nov 19 p 1173
- Pottgiesser, H.:  
Talbot and Other Furnaces, Nov 12 p 1118
- Pottstown Machine Company:  
Semi - Automatic Machine for Unions,\* Nov 26 p 1236
- Power Consumption of Electric Furnaces, Dec 17 p 1402
- Prentiss, F. L.:  
Cleveland Hardware Company's Departure in Industrial Management,\* July 2 p 1  
Factory Building Roof Garden,\* Oct 1 p 755
- Pressed Steel Car Company:  
Additions, Dec 17 p 1421
- Presses:  
Cleveland Massive Double-Crank,\* Oct 1 p 767  
Ferracute Dial Feed Attachment for,\* Oct 29 p 987  
H. and A. Lock Safety Device,\* Aug 13 p 368  
Hart Safety Device for Hammers and,\* Oct 15 p 881  
Hydraulic Broaching and Forcing,\* Oct 29 p 1004  
Tempus Portable Metal Scrap Balancing,\* Nov 26 p 1230  
Waterbury Farrel Single-Acting Pillar,\* Oct 1 p 759  
Weaver Portable, for Machine Shop Work,\* Sept 17 p 664  
Wood Two-Ram Straightening,\* Sept 10 p 609
- Prest-O-Lite Company:  
Conveyor for Hot Shells,\* July 9 p 79
- Prices:  
Alignment of Scrap, Nov 19 p 1189  
Finding Cost from Selling, July 2 p 20  
Higher for Steel, Aug 13 p 384  
Machine Tool, July 30 p 273  
Pig-Iron and Scrap, Oct 1 p 782  
Rise and Fall of Metals, Oct 8 p 841  
Selling, of Castings, Oct 22 p 933  
Tin Will Tend Upward, Aug 13 p 408
- Prime Steel Company:  
Making Steel Castings,\* Oct 22 p 929
- Prize for "Made in the U. S. A.,"  
Trademark, Dec 17 p 1385
- Producer Gas:  
By-Products from, July 2 p 9  
Lynn By-Products Recovery System, Nov 12 p 1145
- Production and Fatigue, Oct 1 p 776
- Production Statistics:  
Alsace-Lorraine Iron-Ore Output, 1913, Sept 3 p 543  
Bar Output in 1913, Aug 20 p 460  
British Pig Iron, First Half 1914, Aug 27 p 489  
Canadian Steel and Pig-Iron Output, Sept 3 p 565  
Copper Production and Stock, June, July 16 p 141  
Fluorspar, 1913, July 30 p 253  
German Steel, Dec 17 p 1419  
Germany's Iron-Ore Production, 1913, Dec 24 p 1445  
Manganese Ore, 1913, Aug 27 p 514  
Manganese Ores, July 23 p 194  
New South Wales Pig Iron, 1913, Nov 19 p 1179  
Pig Iron, United States, First Half, Aug 20 p 434  
Plate, Sheet and Tin-Plate Production in 1913, July 23 p 234  
Record Coal Output, 1913, July 30 p 247  
Russian Iron and Steel Output, 1913, Aug 13 p 387  
Sheet and Tin Plate, 1913, July 23 pp 213 and 234  
Spelter, First Half 1914, Aug 13 p 400  
Steel, British, 1913, July 2 p 60  
Steel Output in 1913 Close to 1912, July 23 p 230  
Swedish Iron and Steel, 1913, Sept 3 p 543  
United States Iron-Ore Output, 1913, Sept 3 p 555  
World's Coal, Nov 5 p 1085  
World's Copper, Dec 3 p 1292  
Wrought Pipe, Cast Pipe and Galvanized Sheets, 1913, Dec 31 p 1514
- Prosperity, Way of, Sept 10 p 624
- Pryor, R. W., Jr.:  
Noise from Ventilating Fans, July 23 p 210
- Pulleys:  
Medart Steel Rim,\* Sept 3 p 532  
Oakes Pressed Steel,\* Sept 24 p 707
- Pullman Company:  
Sanitation and Safety First,\* Oct 1 p 760
- Pumps:  
Henderer's Hand Hydraulic,\* Dec 31 p 1491  
Humphrey, for Egyptian Government, July 9 p 91  
Nordberg, Unusual, for New Orleans,\* Nov 5 p 1060
- Punching Machines:  
Cleveland Punch and Shear, Heavy Open Gap,\* July 16 p 139
- Purchasing, Golden Rule in, July 16 p 156
- Pyrometer Using Metallic Salt Pastes,\* Dec 31 p 1491
- Q
- Quarrie, Bertram D.:  
Steel Plant Repair System, Dec 3 p 1316
- Quigley Furnace & Foundry Company:  
Powdered Coal in Industrial Furnaces,\* July 9 p 80
- R
- Rack for Tools, Driver,\* Sept 10 p 611
- Radiator, Gas-Heated Hot-Water,\*  
Nov 19 p 1172
- Railroads:  
Business Men Meet, Dec 17 p 1426  
Buying and National Prosperity,\*  
Oct 29 p 988

- Charges for "Wasting" Slag and Ashes, Aug 27 p 514  
 Comfort for Industrial, Nov 12 p 1131  
 Commerce Commission on Industrial, Nov 12 p 1156  
 Crisis, Sept 24 p 724  
 Expected to Do Their Part, Dec 31 p 1500  
 Fair Rates for Service, Sept 3 p 566  
 For Rate Advance, Dec 3 p 1296  
 Granted Five Per Cent. Advance, Dec 24 p 1447  
 Industrial Sidings, Cost of, Aug 27 p 494  
 Isthmian Traffic Compared, Oct 1 p 816  
 Latest Reports on Rail Failures, Nov 19 p 1206  
 Lorain, Ashland & Southern Finished, Aug 27 p 509  
 National Steel Tie Company's Tie,\* Oct 8 p 830  
 No More Car Performance Statistics, Nov 26 p 1243  
 Present Position, July 2 p 36  
 Railway Safety's New Spike, Nov 12 p 1123  
 Rate Rehearing, Oct 22 p 971; Oct 29 p 1007; Nov 5 p 1089  
 Steel Tie for Industrial,\* July 2 p 19  
 Supplymen on Rate Decision, Aug 13 p 369  
 Trying to Advance Commodity Rates, Oct 15 p 886  
 Warehouse and Lighterage Charges at New York, Dec 31 p 1500
- Rails:**  
 Elimination of Seams in Steel,\* Dec 10 p 1334  
 Finishing Temperatures, Oct 8 p 837  
 Finishing Temperatures in Rolling, July 2 p 24  
 Pennsylvania Order, July 2 p 39  
 Reports on Failures, Nov 19 p 1206  
 Titanium-Treated, July 2 p 17  
 Vanadium Steel, Oct 15 p 887
- Railway Business Association:**  
 Convention Proceedings, Dec 17 p 1426
- Railway Safety Spike Company:**  
 Railroad Spike, Nov 12 p 1123
- Ramp, P. R.:**  
 Dry and Green Castings, Sept 3 p 534  
 Organizing and Managing a Foundry, Nov 5 p 1074; Nov 12 p 1146
- Ratchet Drilling, Intz-Webster Tool,\***  
 July 16 p 152
- Ready Tool Company:**  
 Brazing Stellite to Steel, Dec 17 p 1417
- Recorder, Uehling Barometer and Vacuum,\***  
 July 30 p 269
- Recording Device, Esterline Production,\***  
 Sept 17 p 661
- Recording Instruments:**  
 Bristol Long Distance,\* Nov 26 p 1233
- Redfield, Secretary:**  
 Winning South American Trade, Sept 24 p 742
- Reed-Prentice Company:**  
 Automatic Forgings Lathe,\* July 30 p 266  
 Four-Way Drilling Machine,\* Oct 1 p 770
- Refractories for Foundry, Selecting,**  
 Oct 22 p 942
- Repair Department, Steel Plant, Nov**  
 5 p 1053; Dec 3 p 1316
- Republic Iron & Steel Company:**  
 By-Product Coke Plant,\* Dec 24 p 1433  
 Semi-annual Statement, July 30 p 291
- Reynders, A. B.:**  
 Castings as Electrical Apparatus Parts, Dec 31 p 1496
- Rice, Richard H.:**  
 Turbo-Blowers for Furnaces,\* July 23 p 200
- Richards, George M.:**  
 Starting Unloader for Air Compressors,\* July 30 p 268
- Rim or Ring Compressing Machine:**  
 West Tire Hydraulic,\* Dec 24 p 1443
- Rivet Buster, Ingersoll-Rand,\***  
 Sept 17 p 666
- Rods, Dunford & Elliott Hollow Metal,**  
 July 16 p 135
- Roll Design for Several Sections,\***  
 Dec 24 p 1467
- Roll Shells, Rolled Steel,\***  
 Nov 19 p 1176
- Roller Bearing, Test of Taper,\***  
 Oct 29 p 1004
- Roller for Skids, Safety,\***  
 Nov 12 p 1124
- Rolling Machine, Waterbury Farrel,**  
 Thread,\* Dec 3 p 1283
- Rolling Mills:**  
 Brier Hill Blooming-Mill Engine Test,\* Dec 3 p 1278  
 Carpenter Steel Company, Steam Turbine Drive,\* Nov 26 p 1221  
 Empire Sheet Mill, Oct 8 p 843  
 Falls Hollow Staybolt Company, Sept 24 p 717  
 Finishing Temperatures in Rolling Rails, July 2 p 24  
 Franklin Steel Works,\* Sept 10 p 606
- German, Bremerhütte, A. G.,\***  
 Nov 19 p 1174
- Illinois Steel Company's Gary 36-in. Slabbing Mill,\***  
 Oct 8 p 824
- Jones & Laughlin Tin Mill Building**  
 Record, July 23 p 211
- Taylor, N. & G., Tin-Plate Works,\***  
 July 9 p 73
- Wage Scale Agreement, July**  
 16 p 177
- Rolls, Test of Corrugating,\***  
 Nov 19 p 1177
- Roof Garden on Factory,\***  
 Oct 1 p 755
- Rowley, J. T.:**  
 Casting Billets, July 2 p 56
- Russell Mfg. Company:**  
 Suburban Factory,\* Aug 6 p 303
- Russia:**  
 By-Product Coke Ovens, July 23 p 197  
 Greater Trade Opportunity, Oct 1 p 800  
 Iron and Steel Output, 1913, Aug 13 p 387  
 Trade Should be Developed, Oct 29 p 1034
- Ryerson, Joseph T., & Son:**  
 St. Louis Warehouse, July 23 p 235; Aug 6 p 329
- S
- Safety and Sanitation:**  
 At Pullman Works,\* Oct 1 p 760  
 Second International Exposition, Dec 17 p 1419
- Safety Appliances:**  
 Armstrong Lathe Dog Shield,\* Nov 12 p 1125  
 Challenge Grinding Machine,\* Oct 8 p 832  
 Cupola Explosion Prevention,\* July 30 p 250  
 Cupola Tapping Devices,\* Aug 13 p 374  
 Curtis Saw Guard,\* Dec 31 p 1486  
 Danger Sign,\* July 16 p 149; Oct 29 p 1030  
 Ferracute Press Attachment,\* Oct 29 p 987  
 For the Foundry, Nov 26 pp 1241 and 1260  
 Goggles for Grinders, Dec 24 p 1469  
 Goggle Lens Color,\* July 23 p 194  
 Gould & Eberhardt Shaping Machine Guard,\* Oct 1 p 765  
 Grinding Machines, Dec 17 p 1392  
 Hart Hammer and Press Device,\* Oct 15 p 881
- Ingersoll-Rand Riveting Hammer,**  
 July 16 p 132
- In Grinding Machinery, Nov**  
 26 p 1235
- King, F. W., Goggles,\***  
 July 16 p 149
- Ladder Attachment,\***  
 Sept 10 p 613
- Machinery Safeguards, Specifications,**  
 Aug 20 p 454
- Northern Crane Trolley,\***  
 Dec 17 p 1396
- Punch Press Device,\***  
 Aug 13 p 368
- Roller for Skids,\***  
 Nov 12 p 1124
- Westinghouse Panel for Cranes,\***  
 July 30 p 253
- Safety Conference in Pennsylvania,**  
 Nov 26 p 1231
- Safety Congress:**  
 (See National Council for Industrial Safety)
- Safety Exposition at Columbus, Ohio,**  
 Dec 3 p 1291
- "Safety First" May Defeat Its Purpose,**  
 Oct 22 p 956
- Safety Movement, Sept**  
 24 p 716
- Safety Regulations for Blast Furnaces,**  
 Nov 26 p 1226
- Salau & Birkholz:**  
 Continuous Annealing Furnace,\* July 9 p 86
- Sales Methods, Molding-Machine,**  
 July 9 p 99
- Salesman, "Good Fellow," Disappearing,**  
 July 2 p 38
- Sand:**  
 Aluminum Castings Company's Mixing Plant, Dec 3 p 1273  
 Molding Sand Problem, Sept 3 p 544
- Sanding Machines:**  
 Besly Grinding and,\* Sept 3 p 552
- Saw Blade, Atkins Welded Hack,**  
 Sept 17 p 661
- Sawing Machines:**  
 Atkins Circular, Test, Oct 1 p 772  
 Burr Worm-Driven Cold,\* Nov 26 p 1232  
 Long Use of a Newton,\* Sept 24 p 714  
 Williamson Metal Band,\* Sept 3 p 550
- Scaffolds, Removing Blast Furnace,\***  
 Dec 24 p 1446
- Scales, What Railroad Track Must Sustain,**  
 Dec 24 p 1445
- Schaphorst, W. F.:**  
 Capitalizing Advertising Failures, Sept 3 p 568  
 Duty on Advertising to Canada, Oct 8 p 842  
 Value of Detail Photographs, Aug 13 p 387
- Schoeneweg, Herman:**  
 Removing Blast Furnace Scaffolds,\* Dec 24 p 1446
- Schooling the Entire Organization,**  
 July 23 p 208
- Schools:**  
 University of Pittsburgh Evening Engineering School, Oct 8 p 831
- Schoop Metal Spraying Process,\***  
 Aug 20 p 426
- Schubert, C. W.:**  
 Structural Designing Chart, Aug 20 p 428
- Schutte & Koerting Company:**  
 High Pressure Reducing Valve,\* July 23 p 199  
 Operating Valve for Hydraulic Machinery,\* July 16 p 151
- Scott, F. A.:**  
 Germany's Industrial Advance, Aug 6 p 320
- Scott-Johnson Mfg. Company:**  
 All-Metal Box Hand Core Making, Sept 3 p 537
- Scrap:**  
 Alignment of Prices, Nov 19 p 1189  
 And Pig-Iron Prices, Oct 1 p 782  
 Standard Old Metal Classification, Dec 31 p 1516  
 Tempus Metal Baling Press,\* Nov 26 p 1230
- Scrap-Iron Organization Aims,**  
 July 16 p 141

## Screw Machines:

- Brown & Sharpe Improved Automatic,\* Aug 6 p 306  
 Brown & Sharpe Single-Belt Drive,\* July 30 p 271  
 Townsend Automatic Hopper Feed,\* Oct 1 p 773  
 Warner & Swasey New Turret,\* July 30 p 248  
 Screw Plates, Conant & Donelson Guide for,\* Dec 31 p 1488  
 Screw Thread Rolling Machine, Waterbury Farrel,\* Dec 3 p 1283  
 Seams in Steel Rails, Elimination of,\* Dec 10 p 1334  
 Searchlight Company:  
 Gas in Demand, July 9 p 121  
 Securities, Foreign Holdings of American, Oct 22 p 957  
 Shaft, United Mfg. Company's Improved Flexible,\* Dec 3 p 1287  
 Shannon, John J.:  
 Air-Cooled Blast Furnace Stack, July 30 p 271  
 Shaping Machines:  
 Gould & Eberhardt, with Pulley Guard,\* Oct 1 p 765  
 Shearing Machines:  
 Canton Portable Alligator,\* July 2 p 23  
 Cleveland Heavy Plate,\* Nov 12 p 1119  
 Sheet and Tin-Plate Production, July 23 pp 213 and 234  
 Sheet Metal Stamping Machine, Waterbury Farrel,\* Sept 3 p 549  
 Sheet Steel, Testing, July 23 p 195  
 Sheets:  
 Oxidized Finish for, Sept 24 p 754  
 Patent for Iron and Steel Manufacture, Oct 1 p 805  
 Production of Galvanized, 1913, Dec 31 p 1514  
 Uniform Oxidizing of, Dec 17 p 1396  
 Shells and Armor, Successful Bidders for, Nov 5 p 1049  
 Shells, Rolled Steel Roll,\* Nov 19 p 1176  
 Sherardizing:  
 Origin of, Nov 26 p 1244  
 Theory and Practice, July 23, p 191; July 30 p 245; Aug 6 p 316; Aug 13 p 378; Aug 20 p 424  
 Ship-Ownning Bill, Outlook for Government, Nov 26 p 1264  
 Ship Subsidies, Canadian, Oct 1 p 758  
 Shipbuilding:  
 Expensive Navy Yard Work, Dec 24 p 1475  
 Statistics, 1914, July 16 p 177  
 Shipments, Tracing, Oct 29 p 1030  
 Shovel Lighting Plants, Steam,\* Dec 17 p 1396  
 Shrapnel:  
 Fuse Caps, Noble & Westbrook Machine for Marking,\* Dec 24 p 1444  
 Making, Nov 19 p 1218  
 Sidings, Industrial, Cost of, Aug 27 p 494  
 Simmersbach, Oskar:  
 Measurements of Blast Furnaces, Oct 8 p 828  
 Sintering Plants, Greenawalt Iron-Ore, Oct 1 p 775; Oct 8 p 842  
 Sipp Machine Company:  
 Sensitive Drilling Machine,\* Dec 31 p 1528  
 Skelp Charging Machine, Taylor-Wilson,\* Dec 31 p 1483  
 Skids, Safety Roller for,\* Nov 12 p 1124  
 Slabbing Mill, Illinois Steel Company's Gary 36-in.,\* Oct 8 p 824  
 Slag:  
 As Aggregate in Concrete, July 23 p 201  
 Charges for "Wasting" Ashes and, Aug 27 p 514  
 Heat in,\* Oct 22 p 944

## Slag Steam Generator Company:

- Power from Molten Slag, July 16 p 139  
 Slick, E. E.:  
 Concrete Reinforcing Bar,\* July 2 p 22  
 Steel Tie for Industrial Railroads,\* July 2 p 19  
 Smith, Charles G.:  
 Grinding Safety Devices, Dec 17 p 1392  
 Safety in Grinding Machinery, Nov 26 p 1235  
 Smith-Serrell Company, Inc.:  
 Double-Ring Shaft Coupling,\* Nov 12 p 1124  
 Snyder, F. T.:  
 Electric Furnace in the Foundry, Oct 1 p 779  
 Society to Promote the Science of Management:  
 Meeting Programme, Dec 3 p 1301  
 Proceedings of Meeting, Dec 10 p 1369  
 Souder, Harrison:  
 First Steel Ore Stocking Trestle,\* Nov 12 p 1132  
 South America:  
 American Express Company Investigation in, Oct 1 p 799  
 Banking and Credit in, Sept 24 p 742  
 Catalogue Suggestions for, Nov 5 p 1103  
 Chicago Vessel to, Sept 3 p 587  
 Diplomats Confer to Further Our Trade, Sept 17 p 692  
 How to Sell and Make Trade Permanent, Sept 24 p 743  
 Machinery Trade, Aug 27 p 486  
 Markets of, and the War, Aug 27 p 473  
 Our Iron and Steel and Machinery Exports to, 1913, Aug 20 p 460  
 Our Iron and Steel Trade in Minor Countries, Sept 10 p 645  
 Progress in Trade Problems, Sept 24 p 742  
 Reciprocal Trade with, Oct 15 p 899  
 Relations with, Oct 15 p 919  
 Sanity on Trade, Sept 24 p 724  
 Secretary Redfield on Winning Trade, Sept 24 p 742  
 Special Government Agents in, Sept 3 p 586  
 Trade Directions Need Emphasis, Oct 1 p 800  
 United States Banks in, Oct 29 p 1026  
 United States Coal for, Sept 24 p 744  
 Water Wheel Trade, Nov 5 p 1083  
 Southern Iron and Steel Industry:  
 James Bowron, Nov 12 p 1126; Nov 19 p 1184; Nov 26 p 1228  
 Foundry Pig-Iron Properties, Dec 3 p 1294  
 Thomas K. Glenn, Oct 29 p 992  
 Rates, Dec 31 p 1516  
 Southern Well Works Company:  
 Reversible Pipe Tong,\* July 2 p 23  
 Spain:  
 Iron-Ore Exports, Dec 24 p 1466  
 Trade, Conference on, Oct 22 p 974  
 Spannagel, A.:  
 Pfoser-Strack-Stumm Blast Furnace Stove System, Dec 3 p 1318  
 Special Work, Newton Machine Tool Works, Adapting Machine for,\* Oct 8 p 821  
 Specifications:  
 Hearing on Boiler, Sept 10 p 613  
 Progress on Steam Boiler, Sept 17 p 691  
 Progress Toward International, July 2 p 63  
 Seamless and Lap-Welded Boiler Tubes, Dec 17 p 1418  
 Speed in the Shop, Getting, Nov 12 p 1124  
 Spelter:  
 Situation in, Aug 27 p 492  
 Statistics, First Half 1914, Aug 13 p 400

- Spiegeleisen Blast Furnace Operation,\* Dec 17 p 1398  
 Spike, Railway Safety Spike Company's New, Nov 12 p 1123  
 Spirals, Brown & Sharpe, Short Lead Cutting Attachment, Dec 3 p 1293  
 Spokes, Waterbury Farrel Thread Rolling Machines for,\* Aug 6 p 319  
 Spraying, Schoop Process of Metal,\* Aug 20 p 426  
 Springfield Machine Company:  
 Carwheel Grinding Machinery,\* Dec 31 p 1485  
 St. Louis Screw Company:  
 New Plant, Sept 17 p 672  
 Stagg, Jr., and Mathews:  
 Hardening Tool Steel,\* Dec 10 p 1340  
 Stamp Taxes, New, Nov 5 p 1049  
 Standard Cast Iron Pipe & Foundry Company:  
 Annual Report, Sept 3 p 585  
 Standard Chain Company:  
 Export Order for Chain, Dec 3 p 1325  
 Standard Electric Tool Company:  
 Internal Grinding Device,\* Dec 31 p 1529  
 Standard Engineering Company:  
 Two-Head Roll Grinding Machine,\* July 23 p 198  
 Standard Machinery Company:  
 Shop with Unusual Features,\* Sept 17 p 655  
 Standard Scale & Supply Company:  
 What Railroad Track Scales Must Sustain, Dec 24 p 1445  
 Standardization:  
 Economy in, Dec 3 p 1299  
 In the Factory,\* Dec 3 p 1280  
 Starrett, L. S., Company:  
 Real Business Condition, July 2 p 35  
 Starters, Compression, Allen Bradley,\* Oct 8 p 831  
 Stauff, D. B.:  
 Coke Oven Appliance,\* Sept 17 p 660  
 Stead, J. E.:  
 Carbon Hearths for Blast Furnaces, Sept 17 p 666  
 Stealing of Tools, To Prevent, Sept 24 p 716  
 Steam:  
 As a By-Product,\* Oct 1 p 764  
 Effect on Magnesite, Oct 1 p 770  
 Power from Molten Slag, July 16 p 139  
 Steel:  
 And Iron Industry, Recasting the, July 2 p 37  
 And Iron, Southern Industry, Oct 29 p 992  
 Boron in Iron and, Nov 19 p 1172  
 Brazing Stellite to, Dec 17 p 1417  
 British Production, 1913, July 2 p 60  
 Brittleness in Soft,\* Dec 3 p 1322  
 Consumption and "Financing," Sept 17 p 671  
 Decarburization of,\* Oct 22 p 934  
 Duplex Process,\* Oct 15, p 882  
 Electric, from Ore Fines,\* Oct 15 p 877  
 Electricity in Plants, Nov 5 p 1078  
 Export Prospects, Sept 10 p 625  
 Factors in Hardening Tool,\* Dec 10 p 1340  
 German and Austrian Trade Conditions, Oct 8 p 845  
 German and Swedish Chrome Tool Steel Tubing, Sept 24 p 726  
 German Production, Dec 17 p 1419  
 Hardening in a Forge, Sept 3 p 553  
 Heat-Treated and Alloy in Locomotives, July 16 p 187  
 International Competition in, Dec 31 p 1499  
 Lean Year's Distribution of, Dec 24 p 1451



- Lindemuth Patent for Making Solid Ingots and Castings, Dec 24 p 1443
- Manufacture of Crucible,\* July 2 p 4
- Mayari Chisel, Test,\* Dec 3 p 1323
- Methods for Local Case Hardening, Dec 31 p 1529
- New Manganese, Nov 26 p 1230
- Nichols Patent for Making Manganese, July 30 p 267
- Output, 1913, Close to 1912, July 23 p 230
- Oxygen in, Nov 19 p 1173
- Pressed Forgings and Castings, Substitutes, Oakes, July 2 p 2
- Repair Department of Plant, Nov 5 p 1055; Dec 3 p 1316
- Replacing Foreign Alloy, Nov 26 p 1242
- Revised Drawback for Hack Saws, July 30 p 275
- Rowley Method, Casting Billets, July 2 p 56
- Schedule, 1914 Census, July 9 p 119; July 30 p 292
- Surface Decarbonization of Tool,\* Dec 3 p 1288
- Testing Sheet,\* July 23 p 195
- Vanadium Hammer Piston Rods, Sept 17 p 666
- Vanadium, in Locomotives, Aug 6 p 353
- Welding High Speed to Ordinary, July 16 p 152
- Steele, F. W.:  
Tar Vapor Recovery, Nov. 26 p 1258
- Stellite, Brazing to Steel, Dec 17 p 1417
- Stevens, S. A.:  
Stockroom System,\* Aug 6 p 324
- Stobie, Victor:  
Patent for Improving Pig Iron to Equal Cold-Blast Iron, Dec 24 p 1443
- Stockroom System, LeBlond,\* Aug 6 p 324
- Stocks, Steadying Effect of Carrying, Dec 31 p 1498
- Stoker, Illinois Chain Grate,\* July 16 p 140
- Stove Founders and Molders Agree on Molding Machine Work Prices, July 16 p 159
- Stow Mfg. Company:  
Tapered Bushings Regulating Device,\* Sept 24 p 709
- Street, A. L. H.:  
(See Decisions of Interest to Manufacturers)  
Compensation Acts and Industrial Diseases, Oct 1 p 807
- Strikes:  
(See Labor)
- Stromeyer, C. E.:  
Calorimetric Determination of Fatigue of Metals, Nov 5 p 1066
- Structural Engineers' Designing Chart, Aug 20 p 428
- Stumpf Una-Flow Engine Company:  
Mesta Machine Company to Build Engines, Dec 17 p 1403
- Styrian Erzberg Iron-Ore Output,\* Aug 27 p 482
- Submarine Contracts Reported Canceled, Fore River, Dec 10 p 1368
- Sullivan, F. C.:  
Simultaneous Buying to Start a Revival, Dec 10 p 1352
- Sunshine Coal & Coke Company:  
Coke Plants Bought by American Steel Company, Dec 24 p 1452
- Superior Pouring Metals Company:  
Rowley Method of Casting Billets, July 2 p 56
- Supply and Machinery Dealers' Association:  
(See National Supply and Machinery Dealers' Association)
- Swaging Machine, Langelier Special,\* Sept 24 p 717
- Sweden:  
August Iron Ore Exports, Nov 5 p 1081
- Helfenstein Electric Furnace,\* Aug 27 p 478
- Iron and Steel, 1913, Sept 3 p 543
- Iron Trade Two-Thirds Full, Nov 12 p 1133
- Steel and Ore Output for Six Months, Dec 24 p 1469
- Switches, Cutler-Hammer Magnetic Lock-Out, Dec 10 p 1339
- T
- Tabor Mfg Company:  
Gear Testing Machine,\* July 2 p 18
- Talbot and Other Furnaces, Nov 12 p 1118
- Tape Threader, Metallic, Aug 13 p 383
- Tapping Fixture, Henry & Wright, Direct Drive,\* Oct 1 p 757
- Tapping Machines, Garvin Automatic,\* Dec 24 p 1442
- Tar Vapor Recovery by Alternating Current, Nov 26 p 1258
- Tariff:  
American Wire Gauge in Customs Service, Aug 27 p 477
- Controversy over 5 Per Cent. Discount to American Carriers, Nov 19 p 1190
- Duty on Advertising Matter to Canada, Sept 24 p 726; Oct 1 p 783; Oct 8 p 842
- Fall in Trade Balance, Aug 6 p 360
- Lower, Hurtful to Small Chains Manufacturer, Dec 17 p 1402
- Possible Revision, Nov 26 p 1243
- Protection, a British War Measure, Sept 10 p 624
- Tata Iron & Steel Company:  
Annual Report, Dec 24 p 1473
- Tax:  
Minnesota Iron-Ore, Nov 26 p 1235
- New Stamp, Nov 5 p 1049
- On Copper, Iron Ore and Coal, Michigan Tonnage, Aug 27 p 480
- Proposed Freight, Sept 17 p 670
- Taylor Coal & Coke Company:  
Coke Oven Appliances,\* Sept 17 p 660
- Taylor, Frederick W.:  
Scientific Management Applied to Selling, Oct 29 p 1029
- Taylor, N. & G., Company:  
Improvements, July 2 p 9
- New Tin-Plate Works,\* July 9 p 73
- Taylor-Wilson Mfg. Company:  
Skelp Charging Machine,\* Dec 31 p 1483
- Technical Men and Management, Nov 26 p 1244
- Telephone Talks, Recording,\* Oct 1 p 769
- Telpher Furnace Charging,\* Dec 17 p 1388
- Tempus Reclaiming & Mfg. Company:  
Metal Scrap Baling Press,\* Nov 26 p 1230
- Tennessee Coal, Iron & Railroad Company:  
Ensley Rail Mill Shut Down, Oct 1 p 805
- Blast Furnace Turbo-Blower,\* Oct 29 p 998
- Testing Machine:  
Drill,\* July 16 p 142
- New Vibratory,\* July 9 p 84
- Testing Materials Society:  
(See American Society for Testing Materials)
- Testing Sheet Steel,\* July 23 p 195
- Tests:  
Bloomington-Mill Engine, Brier Hill,\* Dec 3 p 1278
- Reinforcing Bars, Aug 6 p 323
- Taper Roller Bearing,\* Oct 29 p 1004
- Texas:  
Iron Ore, Call for, Aug 20 p 439
- Storing Surplus Cotton, Sept 24 p 720
- Texas Carnegie Steel Association:  
Warehouse and Fabricating Shop, Dec 31 p 1500
- Thaler, Dr. H.:  
Spiegeleisen Blast Furnace Operation,\* Dec 17 p 1398
- Thermometer, Brown Resistance Type,\* July 30 p 267
- Thomas Iron Company:  
New Ore Find, July 30 p 258
- Thomas, L. E.:  
Coloring Patterns for Castings, Dec 3 p 1300
- Thompson, Sanford E.:  
Floors in Fireproof Buildings, Dec 31 p 1527
- Thread Rolling Machines for Spokes, Waterbury Farrel,\* Aug 6 p 319
- Threading, Speed in Pipe, Aug 6 p 322
- Tie:  
Railroad, National Steel Tie Company's,\* Oct 8 p 830
- Steel, for Industrial Railroads,\* July 2 p 19
- Tilt, E. B.:  
Good Carwheels from Chilled Cast Iron,\* July 16 p 136
- Tin:  
Bolivian, May Smelt, Here, Oct 29 p 1010
- Bolivian, Once Smelted at New York, Aug 20 p 459
- Seaboard Smelter for Bolivian, Nov 19 p 1205
- Monthly Statistics, Aug 6 p 350
- Prices Will Tend Upward, Aug 13 p 408
- Valorization for Bolivian Concentrates, Sept 10 p 646
- Tin Mill Building, Jones & Laughlin Record, July 23 p 211
- Tin Plate:  
And Sheet Production, July 23 pp 213 and 234
- Contracts for 1915, Dec 10 p 1351
- New N. & G. Taylor Works,\* July 9 p 73
- Sampling and Analyzing Terne and,\* July 23 p 206
- Sheet and Plate Production, 1913, July 23 p 234
- Tires:  
Annealing Oven for,\* Dec 17 p 1397
- Monarch Sectional Heater for,\* Nov 26 p 1236
- Titaniferous Ores in Blast Furnace, Oct 22 p 936; Dec 24 p 1470
- Titanium Alloy Mfg. Company:  
Rails, Titanium-Treated, July 2 p 17
- Titanium and Magnetic Properties of Iron, July 2 p 53
- Tod-Stambaugh Company:  
Hill Iron Mines, Leases, Oct 15 p 920
- Tofo Mines, Operations in 1914,\* Dec 24 p 1448
- Tool for Ratchet Drilling, Lutz-Webster Universal,\* July 16 p 152
- Tool Steel, Factors in Hardening,\* Dec 10 p 1340
- Tool Work, Minimizing Cost of Special, July 2 p 26
- Tooling, Advantages of Special,\* Aug 6 p 327
- Touceda, Enrique:  
Strength and Ductility of Malleable Iron,\* Oct 22 p 948
- Townsend, H. P., Mfg. Company:  
Automatic Hopper Feed Screw Machines,\* Oct 1 p 773
- Tracing Shipments, Oct 29 p 1030
- Tracings without Ink, Universal Drafting Machine Company, July 30 p 269
- Tractors, Farm, in Heavier Demand, Nov 5 p 1082
- Trade Activity, Measures of, July 30 p 273
- Trade Balance, Heavy Fall in, Aug 6, p 360
- Trade Commission Bill:  
Jobbers Meet the President, Aug 6 p 350
- Text of Bill, Aug 13 pp 381 and 387

- Trade Extension, Move for American, Sept 3 p 586  
 Transue & Williams:  
 Powdered Coal for Heating Furnaces,\* Nov 5 p 1045  
 Trestle:  
 First Steel Ore Stocking,\* Nov 12 p 1132  
 Steel Ore Stocking,\* Oct 22 p 940  
 Triangular Tool Company:  
 Drill for Procuring Test Specimens,\* Nov 26 p 1227  
 Trimming Machine, Waterbury Farrel Automatic Bolt Head,\* Oct 29 p 997  
 Trinks, W.:  
 View of War Effects, Sept 10 p 645  
 Trood, Samuel:  
 Theory and Practice of Sherardizing, July 23 p 191; July 30 p 245; Aug 6 p 316; Aug 13 p 378; Aug 20 p 424  
 Tropenas Converter Company:  
 Steel Castings, Nov 26 p 1257  
 Truck, Edwards All-Steel Hand,\* Dec 24 p 1445  
 Trussed Concrete Steel Company:  
 Steel Guard for Concrete,\* Aug 27 p 487  
 "Trust" Legislation, Aspects, Aug 6 p 331  
 Tschentscher, R.:  
 Electricity in Steel Plants, Nov 5 p 1078  
 Tubes, Specifications for Lap-Welded and Seamless Boiler, Dec 17 p 1418  
 Tumbling Barrel, Kane & Roach,\* Dec 31 p 1525  
 Tungsten Market and the War, Sept 3 p 589  
 Tuning Pin Supply Increased, American, Oct 1 p 800  
 Tupper, C. A.:  
 Speed in Pipe Threading, Aug. 6 p 322  
 Works Construction News, Value of, Aug 27 p 488  
 Turbine Drive, Carpenter Rolling Mill with Steam,\* Nov 26 p 1221  
 Turbines:  
 In Steel Plants, Nov 19 p 1187  
 Late Steam,\* July 2 p 28  
 Turbo-Blower:  
 For Blast Furnace,\* Oct 29 p 998  
 For Furnaces,\* July 23 p 200  
 Remarks on, Nov 5 p 1104  
 Tyler, W. S., Company:  
 Profit-Sharing Plan, July 23 p 201

## U

- Uehling Instrument Company:  
 Barometer and Vacuum Recorder,\* July 30 p 269  
 Unions, Pottstown Semi-Automatic Machine for,\* Nov 26 p 1236  
 United Engineering & Foundry Company:  
 Heavy Duty Lathe for Turning Rolls,\* Oct 8 p 833  
 United Mfg. Company:  
 Improved Flexible Shaft,\* Dec 3 p 1287  
 United States Banks in South America, Oct 29 p 1026  
 United States Cast Iron Pipe & Foundry Company:  
 Annual Report, July 2 p 54  
 United States Sherardizing Company:  
 Theory and Practice of Sherardizing, July 23 p 191; July 30 p 245; Aug 6 p 316; Aug 13 p 378; Aug 20 p 424  
 United States Steel Corporation:  
 Dissolution Suit:  
 Government Argument, Oct 15 p 915  
 Defendant's Brief, Oct 22 p 951  
 Attorneys' Arguments, Oct 29 p 1024  
 Editorial on, Oct 29 p 1008 and Nov 5 p 1080  
 No Stock to Employees, Dec 17 p 1424

- No Wage Reduction, Dec 24 p 1452  
 Panama-Pacific Exposition Exhibit, Dec 17 p 1425  
 Quarterly Statement, July 30 p 275; Oct 29 p 1011  
 Unfilled Orders, July 16 p 159; Aug 13 p 386; Sept 17 p 673; Oct 15 p 915; Nov 12 p 1153; Dec 17 p 1403  
 Wage Reductions Undecided, Nov 12 p 1152  
 Waiting for Ship Registry Proclamation, Sept 3 p 588  
 Universal Danger Sign, For One, Oct 29 p 1030  
 Universal Drafting Machine Company: Making Tracings without Ink, July 30 p 269  
 Universal Joint Friction,\* Dec 24 p 1438  
 University of Pittsburgh, Evening Engineering School, Oct 8 p 831

## V

- Valentine, Robert G.:  
 Industrial Counselor and the Industrial Audit, Dec 10 p 1369  
 Valley City Machine Works:  
 Pipe Drilling Machines,\* Dec 31 p 1490  
 Valley Forge Cutlery Company:  
 In Receiver's Hands, Sept 10 p 629  
 Valley Mold & Iron Company:  
 To Build Ingot Mold Foundry, July 23 p 214  
 Valves:  
 Hydraulic, Five-Way Balanced Operating,\* Dec 17 p 1385  
 International High Pressure Gas Cylinder Stud,\* Oct 22 p 950  
 Pilot Operated Hydraulic Press,\* July 16 p 146  
 Schutte & Koerting High Pressure Reducing,\* July 23 p 199  
 Schutte & Koerting Operating, for Hydraulic Machinery,\* July 16 p 151  
 Whiting Disk Type for Air Hoists, Nov 19 p 1186  
 Van Aller, T.:  
 Calorizing, for Coating Metals,\* Dec 17 p 1386  
 Van Langendonck, C.:  
 Helfenstein Electric Furnace,\* Aug 27 p 478  
 Vanadium Steel:  
 Hammer Piston Rods, Sept 17 p 666  
 In Locomotives, Aug 6 p 353  
 Rails, Oct 15 p 887  
 Ventilator, Burt Belt-Driven Fan Type, July 30 p 253  
 Vibrator, International Electric Molding Machine,\* July 16 p 146  
 Vibratory Testing Machine, New,\* July 9 p 84  
 Virginia Iron, Coal & Coke Company:  
 Annual Report, Oct 29 p 1010  
 Voight, Davis & Co.:  
 American Prices Must Be Right, Oct 8 p 860  
 Vulcan Engineering Sales Company:  
 Suction Lubricator for Compressed Air Devices, Oct 8 p 839  
 Vulcan Process Company:  
 Welding Malleable Castings, July 16 p 152

## W

- Wages:  
 (See Labor)  
 Wainwright, L. W.:  
 Lower Tariff Hurts Small Chain Manufacture, Dec 17 p 1402  
 Waldron, Frederick A.:  
 Lesson of Present Industrial Situation, Oct 22 p 974  
 Walker and Malcolmson:  
 Universal Joint Friction,\* Dec 24 p 1438  
 Walker Grinder Company:  
 Disk and Surface Grinding Machine,\* Dec 31 p 1489

- Walther, J.:  
 Continuous Annealing Furnace,\* July 9 p 86  
 War:  
 Advance in Australian Steel Prices, Nov 26 p 1263  
 And Europe's Trade, July 30 p 272  
 And Foreign Trade, Oct 29 p 1035  
 And German Iron Trade, Oct 22 p 968  
 Articles Contraband of, Aug 13 p 402; Aug 20 p 433; Oct 8 p 832; Nov 19 p 1207  
 British Steel Trade and the, Nov 5 p 1091  
 Canada's Trade Under Conditions, Sept 10 p 646  
 Editorial on Exports, Nov 19 p 1188  
 Effect on German and Belgian Steel Works, Sept 24 p 745  
 Effect on Our Cuban Trade, Oct 22, p 973  
 Effect on our Trade, Oct 1 p 802  
 European, and Iron and Machinery Trades, Aug 6 p 354; Aug 13 p 404; Aug 20 p 455; Aug 27 p 510; Sept 3 p 586; Sept 10 p 644; Sept 17 p 692; Sept 24 p 742; Oct 1 p 798; Oct 8 p 860; Oct 15 p 918  
 European Welfare Systems and the, Oct 1 p 781  
 Export Trade Movement, Progress in, Aug 20 p 455  
 German Iron and Metal Trades and, Nov 26 p 1259  
 German Steel Trade and, Oct 15 p 889  
 Lines in Which Orders Are Due to the, Oct 1 p 798  
 Markets of South America and the, Aug 27 p 473  
 Our Mineral Reserves and the, Sept 10 p 644  
 Pittsburgh View of Effects, Sept 10 p 645  
 Seat of War in Belgium,\* Aug 20 p 420  
 Some Increase in Inquiry Due to the, Aug 27 p 510  
 Trade Supremacy Large Factor in the, Nov 5 p 1050  
 Tungsten Market and the, Sept 3 p 589  
 Warehouse:  
 For Heavy Material, Bourne-Fuller,\* Sept 10 p 602  
 Laib Company, Louisville,\* July 16 p 131  
 Warner & Swasey Company:  
 New Turret Screw Machine,\* July 30 p 248  
 Warranty, Scope of Maker's, July 30 p 274  
 Warwick Iron & Steel Company:  
 American Blast Furnace Practice,\* July 23 p 202  
 Washer, National Umbrella Frame Company's Corrugated Lock,\* Nov 26 p 1232  
 Water:  
 Drinking, Systems, Refrigerated, Sept 3 p 589  
 Softening, at Alan Wood Iron & Steel Company,\* Sept 17 p 665  
 Waterbury, Conn., Varied Products, Oct. 22 p 930  
 Waterbury Farrel Foundry & Machine Company:  
 Automatic Bolt Head Trimming Machine,\* Oct 29 p 997  
 Curtis Safety Saw Guard,\* Dec 31 p 1486  
 Improved Automatic Eyelet Machine,\* Sept 3 p 549  
 Improved Chain Draw Benches,\* July 2 p 17  
 Reciprocating Thread Rolling Machine,\* Dec 3 p 1283  
 Single-Acting Pillar Presses,\* Oct 1 p 759  
 Thread Rolling Machines for Spokes,\* Aug 6 p 319

- Watertown Arsenal Time Study and Bonus, Nov 19 p 1178
- Watson-Stillman Company:  
Unusual Hydraulic Jack,\* Nov 19 p 1179
- Weaver Mfg. Company:  
Portable Machine Shop Press,\* Sept 17 p 664
- Webbert, Louis P.:  
Manganese Bronze as Engineering Material,\* Sept 3 p 538  
Strength of Non-Ferrous Castings,\* Aug 13 p 370
- Welding:  
C & C Portable Arc Machine,\* Aug 6 p 319  
High Speed to Ordinary Steel, July 16 p 152  
Malleable Castings, July 16 p 152  
Panama-Pacific Pipe,\* Nov 5 p 1083  
Repairing Malleable Castings, Aug 6 p 333
- Welds, Oxy-Acetylene, July 30 p 250
- Wellman-Seaver-Morgan Company:  
Coal Handling from Car to Ship, New Features in, Oct 1 p 765  
Evolution of the Car Dumper,\* Oct 29 p 985  
New Lake Erie Dock Ore Handling Plant,\* Oct 15 p 880
- Wentworth Institute:  
Training Foundry Leaders,\* Oct 1 p 771
- Wernicke-Hatcher Pump Company:  
Single-Stage Rotary Air Compressor, Oct 29 p 991
- West, Thomas D.:  
Foundry as an Adjunct to Engineering, Dec 10 p 1373
- West Tire Setter Company:  
Hydraulic Ring Compressing Machine,\* Dec 24 p 1443
- Western Bar Iron Association:  
Iron Rolling Mill Scale Agreement, July 16 p 177
- Western Steel Corporation:  
Taken Over by Pacific Coast Steel Company, July 30 p 291
- Westinghouse Electric & Mfg. Company:  
Changes, Sept 3 p 588  
Controllers for Electric Cranes,\* Aug 13 p 373  
Factory Standardization,\* Dec 3 p 1280  
Protective Panel for Electric Cranes,\* July 30 p 253  
Relief Department, Dec 31 p 1497  
Shop Installation of Cooper-Hewitt Quartz Lamps,\* Oct 1 p 774  
Steam Shovel Electric Lighting Plants,\* Dec 17 p 1396
- Strike Ended, July 16 p 180  
Strike Settlement Prospects, July 2 p 56
- Westinghouse Machine Company:  
Narrows Siphon of Catskill Aqueduct,\* Aug 13 p 365  
Progress in Building Large Steam Turbines, July 2 p 28
- Wheeler Condenser & Engineering Company:  
Cooling Tower Contracts, Oct 22 p 972  
Self-Contained Jet Condenser,\* Oct 15 p 886
- Wheeling & Lake Erie Railroad:  
Lake Erie Dock Ore Handling Plant,\* Oct 15 p 880
- Wheeling Sheet & Tin Plate Company:  
To Consolidate with Wheeling Steel & Iron Company, July 9 p 120; July 16 p 174
- Wheeling Steel & Iron Company:  
To Consolidate with Wheeling Sheet & Tin Plate Company, July 9 p 120; July 16 p 174
- Wheels, Chrome-Vanadium Rolled Steel, Aug 20 p 423
- Whiting Foundry Equipment Company:  
Disk Type of Valve for Air Hoists, Nov 19 p 1186  
New Design of Foundry Cupola,\* Oct 15 p 890
- Wickhorst, M. H.:  
Latest Reports on Rail Failures, Nov 19 p 1206
- Wickwire Steel Company:  
To Build Steel Plant, Nov 12 p 1128
- Willcox, F. H.:  
Blast Furnace Safety Regulations, Nov 26 p 1226
- Williams, J. H., & Co.:  
Buffalo Drop Forging Plant,\* Oct 8 p 817
- Williamson, H. C.:  
Metal Band Sawing Machine,\* Sept 3 p 550
- Willson, T. A., & Co., Inc.:  
Canadian Buyers and Duty on Advertising Matter, Oct 1 p 783
- Wilmarth & Morman Company:  
Universal Tool-Grinding Machine,\* Sept 3 p 536
- Willmarth Tool Works:  
Radial Drilling Machine,\* Dec 31 p 1487
- Windsor Machine Company:  
To Build Machines in England, July 16 p 174
- Wire, Barb, and Nails in Ireland, Nov 12 p 1123
- Wire, Cause of So-Called Cuppy,\* Sept 10 p 599
- Wire Gauge in Customs Service, American, Aug 27 p 477
- Wire Syndicate, New German, Oct 8 p 843
- Wisconsin:  
Manufacturers and Latin-American Business, Oct 1 p 799  
Manufacturers Ask Special Action for Imports, Sept 3 p 588
- Withrow and Niedner:  
Testing Reinforcing Bars, Aug 6 p 323
- Wolff, Otto:  
By-Products from Producer Gas, July 2 p 9
- Wood, Alan, Iron & Steel Company:  
Softening Water,\* Sept 17 p 665
- Wood, R. D., & Co.:  
Receiver for, Oct 29 p 1011  
Special Two-Ram Straightening Press,\* Sept 10 p 609
- Woods, G. R.:  
Machine Tool Export Trade,\* July 23 p 189
- Works Construction News, Value of, Aug 27 p 488
- World's Leadership, Nov 19 p 1188
- Wormer, C. C. Machinery Company:  
May Dissolve, Aug 13 p 401
- Wrenches:  
Allan Self-Adjusting,\* Dec 3 p 1287  
Sizes for Nuts, Billings & Spencer, Sept 3 p 589
- Wrought-Iron Pipe, Genuine, July 23 p 196
- Y
- Yarnall-Waring Company:  
Novel Use of Liquid Meters, Aug 6 p 315  
Starting Unloader for Air Compressor,\* July 30 p 268
- Youngman, R. H.:  
Effect of Steam on Magnesite, Oct 1 p 770
- Youngstown Sheet & Tube Company:  
Bonus to Employees, July 30 p 289  
Turbines in Steel Plants, Nov 19 p 1187
- Z
- Zillgen, Max:  
Briquettes in the Blast-Furnace, Dec 17 p 1394
- Zimmerschied, K. W.:  
Cast Iron with Unusual Structure,\* Nov 12 p 1120